THE JOURNAL OF

MEDICAL EDUCATION

OFFICIAL PUBLICATION OF
THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES

NOVEMBER 1954 • VOLUME 29 • NUMBER 11

Public Relations in the School of Medicine.....*Walter A. Bloedorn*

Education for Continuity of Care.....*John M. Dorsey, Pauline Wilson Knapp, Lawrence K. Frank*

Medical School Responsibilities for Education in Radioactivity.....*John A. D. Cooper, Austin M. Brues*

Evaluation of the Foreign Trained Physician in Michigan.....*Wayne L. Whitaker*

Report of the Sixty-Fifth Annual Meeting

EDITORIALS

Medical Education in the U.S.S.R.

Psychiatry in the Undergraduate College

Complete contents on page 2

New (17th) Edition

FULTON'S PHYSIOLOGY

See SAUNDERS ADVERTISEMENT—just inside

McGraw-Hill MEDICAL BOOKS

New Books

PRINCIPLES OF BIOCHEMISTRY

By ABRAHAM WHITE, Ph. D., Albert Einstein College of Medicine, Yeshiva University; PHILIP HANDLER, Ph.D., Duke University School of Medicine; EMIL L. SMITH, Ph.D., University of Utah College of Medicine; and DEWITT STETTEN, JR., M.D., Ph.D., Public Health Research Institute of the City of New York. Coming soon! 1114 pp., 6 x 9, 143 illus. $15.00.

Emphasizing the application of biochemistry in medical practice, this new book is a critical exposition of the fundamental principles of the science. Primary consideration is given to the significance of biochemistry in the normal functioning of biological systems, particularly in relation to man.

THE NEUROANATOMICAL BASIS FOR CLINICAL NEUROLOGY

By TALMAGE L. PEELE, M.D., Associate Professor of Anatomy in charge of Neuroanatomy and Assistant Professor of Medicine, Duke University School of Medicine. Just out! 650 pp., 7 x 10, 315 illus. $12.50.

Correlating the structure and function of the nervous system in a composite treatment, this new book combines descriptive neuroanatomy with principles of neural physiology. The material is arranged according to neural systems and includes fundamental neurological symptomatology and frequent references to outstanding research.

HUMAN PHYSIOLOGY — Second Edition

By BERNARDO A. HOUSSAY, M.D.; JUAN T. LEWIS, M.D.; OSCAR ORIAS, M.D.; EDUARDO BRAUN-MENENDEZ, M.D.; ENRIQUE HUG, M.D.; VIRGILIO G. FOGLIA, M.D.; and LUIS F. LELOIR, M.D. 1169 pp., 7 x 10. 504 illus. In preparation. $12.00.

This second edition of this well-known text presents all the aspects of human physiology in both their chemical and physical relationships. Nobel Prize winner Dr. Houssay and his associates have incorporated in this revision the latest data available in the fields of nutrition, carbohydrate metabolism, endocrine glands, sexual physiology, and electrical activity of the heart.

PHARMACOLOGY IN MEDICINE

Edited by VICTOR A. DRILL, M.D., Ph.D., Lecturer in Pharmacology, Northwestern University Medical School. Just out! 1264 pp., 8½ x 11, 191 illus. $19.50.

More than eighty authorities have contributed to this basic text on the pharmacology of those drugs currently in use in medical practice. Though this text contains a vast amount of knowledge, the work is so well organized that this information is made readily available to students and practitioners.

Send for your copy on approval

McGRAW-HILL BOOK COMPANY, INC.

HEALTH EDUCATION DEPARTMENT

330 West 42nd Street **New York 36, N. Y.**

McGRAW-HILL MEDICAL BOOKS McGRAW-HILL MEDICAL BOOKS McGRAW-HILL MEDICAL BOOKS

New from SAUNDERS

Fulton—Textbook of Physiology

New (17th) Edition

This famous classic, now in its seventeenth edition is the only text on physiology based on actual observation of its contributors. The material is of an advanced nature, but presented with force and clarity. It is completely up-to-date and thorough in coverage.

Edited by JOHN F. FULTON, M.D., Sterling Professor of Medical History, Yale University School of Medicine; with the Collaboration of 34 Authorities. About 1300 pages, 6½" x 9½", with 553 illustrations. *New (17th) Edition—Ready in March, 1955.*

Christopher—Minor Surgery Revised by Ochsner and DeBakey

New (7th) Edition

This complete revision will guide you in the diagnosis and treatment of minor surgical conditions and diseases of the entire body. You are shown the procedure which promises best results, which instruments to use and how to use them.

Edited by ALTON OCHSNER, M.D., F.A.C.S., William Hunderson Professor of Surgery and Head of the Department of Surgery, Tulane University of Louisiana School of Medicine; and MICHAEL E. DEBAKEY, M.D., F.A.C.S., Professor of Surgery and Chairman of the Department of Surgery, Baylor University College of Medicine, with 21 Contributors. About 600 pages, 6¾" x 9", with 258 illustrations. *New (7th) Edition—Ready in January, 1955.*

Green and Richmond—Pediatric Diagnosis

New

This unique book presents a comprehensive approach to diagnosis. It starts where the practitioner and student must start—with the symptoms, not the name of the disease. No other book has such an extensive presentation of history taking and physical diagnosis in pediatric practice, with emphasis on positive care to keep the child healthy.

By MORRIS GREEN, M.D., Assistant Professor of Pediatrics, Yale University School of Medicine; and JULIUS B. RICHMOND, M.D., Professor and Chairman of the Department of Pediatrics, State University of New York, College of Medicine, Syracuse. 600 pages, 6⅝" x 10", illustrated. *New.*

Harrow and Mazur—Biochemistry

New (6th) Edition

Here is an up-to-date picture of the fundamental facts of biochemistry and their applications today. The superb organization which makes the text an excellent teaching and learning medium will delight both teachers of biochemistry and their students.

By BENJAMIN HARROW, Ph.D., Professor of Chemistry, College of the City of New York; and ABRAHAM MAZUR, Ph.D., Associate Professor of Chemistry, College of the City of New York. 563 pages, 6" x 9", with 131 illustrations, $6.50. *New (6th) Edition.*

W. B. SAUNDERS COMPANY

West Washington Square **Philadelphia 5**

Table of Contents

VOL. 29 November 1954 No. 11

ARTICLES

Public Relations in the School of Medicine
—*Walter A. Bloedorn* 15

Education for Continuity of Care
—*John M. Dorsey, Pauline Wilson Knapp, Lawrence K. Frank* 20

Medical School Responsibilities for Education in Radioactivity
—*John A. D. Cooper, Austin M. Brues* 29

Evaluation of the Foreign Trained Physician in Michigan
—*Wayne L. Whitaker* 33

Report of the Sixty-Fifth Annual Meeting 37

The Scientists Must Speak Up 49

EDITORIALS AND COMMENTS

Medical Education in the U.S.S.R. 50

Psychiatry in the Undergraduate College 51

NEWS DIGEST 53

College Briefs 54

AUDIOVISUAL NEWS 62

BOOK REVIEWS 71

THE PERSONNEL EXCHANGE 77

Association Officers, Staff, Committees 4

Index to Advertisers 10

Calendar of Meetings 10

The Journal of
MEDICAL EDUCATION

Official publication of the Association of American Medical Colleges, 185 N. Wabash Ave., Chicago 1.

The Journal of MEDICAL EDUCATION is owned and published monthly by the Association of American Medical Colleges, 185 N. Wabash Ave., Chicago 1; Phone, STate 2-8870. Entered as second class matter January 17, 1930, at the Post Office, Chicago, Ill., under the Act of March 3, 1879.

EDITORIAL BOARD: John Z. Bowers, chairman, Utah; William B. Bean, Iowa; Stanley E. Bradley, Columbia; Alan Chesney, Johns Hopkins; James W. Faulkner, Boston; Russell L. Holman, Louisiana State; Chauncey D. Leake, Texas; Dean F. Smiley, secretary.

STAFF: Editor, Dean F. Smiley; Assistant Editor: Tess Snyder; Editorial Assistant: Barbara Madden.

EDITORIAL POLICY: Articles ordinarily will be limited to 5,000 words in length. Articles longer than this usually will require treatment as a supplement and necessitate a publication subsidy. Responsibility for signed articles and editorials is not assumed by the Association's officers or the Journal's Editorial Board but by the individual author.

SUBSCRIPTION RATES: $7 per year; $1 per single copy; foreign $8 per year; $1.25 per single copy.

COPY DEADLINE: Copy for typesetting must be in by the 1st and plates by the 10th of the month preceding publication.

ADVERTISING: Advertising Manager, Roy G. Parry, Journal of Medical Education, 185 N. Wabash Ave., Chicago 1, Ill.; STate 2-8870.

REPRINTS: Each author routinely receives 25 copies of his article promptly after publication. Additional reprints may be purchased from the Journal in quantities of 100, and in multiples of hundreds at a price depending on the length of the article.

Copyright: November 1954, by the Association of American Medical Colleges.

Printed in U.S.A.

PUB. AUG. 1954 — 4TH EDITION

FUNDAMENTALS OF INTERNAL MEDICINE

By WALLACE M. YATER, M.D., F.A.C.P., WITH 21 CONTRIBUTING AUTHORITIES

In this new 4th edition, Yater's text has been completely rewritten and brought to date factually for the benefit of practitioners, "board" candidates, teachers and students.

Clarity of description, economy of wordage, and concentration on material of practical value have always distinguished Yater's book. The discussion of each disease is orderly, giving the definition, cause, pathology, symptoms, differential diagnosis, treatment and general patient care. The distinctive and useful sections on diseases of the skin, ear and eye have been retained and carefully revised as has the section on dietetics. The section on electrocardiography has been revised by Joseph M. Barker, author of THE UNIPOLAR ELECTROCARDIOGRAM. Diagnostic charts, numerous tables and carefully selected illustrations are useful and time-saving features.

4TH EDITION. AUG. 1954. 1306 PAGES. 161 FIGURES. $13.50

PUBL. AUG. 1953 — A NEW TITLE

PEPTIC ULCER:

PAIN PATTERNS, DIAGNOSIS AND MEDICAL TREATMENT

By LUCIAN A. SMITH, M.D., *Mayo Clinic and Foundation*
ANDREW B. RIVERS, M.D., Late, *Mayo Clinic and Foundation*
with Foreword by GEORGE B. EUSTERMAN, M.D.

This book presents the latest tested methods for the precise diagnosis and satisfactory medical management and treatment of the peptic ulcer. It is unique in its emphasis on careful clinical evaluation of specific diagnostic pain patterns, methods for the prevention of recurrence, and an educational form of therapy which leads to full cooperation by the patient in resuming daily activities with frequently lasting comfort. The illustrative material is most valuable.

1ST EDITION. AUG. 1953. 575 PAGES. 210 ILLUS. $12.50

PUBL. AUG. 1954 — 2ND EDITION

LEGAL MEDICINE, PATHOLOGY AND TOXICOLOGY

By THOMAS A. GONZALES, M.D., MORGAN VANCE, M.D.,
MILTON HELPERN, M.D., and CHARLES J. UMBERGER, Ph.D.

This authoritative and profusely illustrated text covers all aspects of the application of medical and pathological knowledge to questions of law involved in the investigation of deaths due to accidental or planned violence or poisoning, deaths due to natural but unknown causes, or deaths which occur under legally suspicious circumstances. Technical methods and procedures described are those currently used by personnel of the medical examiners office in New York City in the handling of more than 20,000 such cases yearly.

2ND EDITION. AUG. 1954, 1370 PAGES. 658 ILLUSTRATIONS. $22.00

APPLETON - CENTURY - CROFTS, INC.

(Publishers of THE NEW CENTURY CYCLOPEDIA OF NAMES)

35 WEST 32nd STREET, NEW YORK 1, N. Y.

Association of American Medical Colleges

OFFICERS OF THE ASSOCIATION 1953-1954

Officers and Members of Executive Council

President: STANLEY E. DORST.....Cincinnati
President-Elect: VERNON W. LIPPARD.....Yale
Vice President: WILLIAM S. MIDDLETON .....Wisconsin
Treasurer: JOHN B. YOUMANS.....Vanderbilt
Immediate Past President: WARD DARLEY .....Colorado
Joseph C. Hinsey, *Chairman* .....N. Y. Hospital-Cornell U. Med. Center
Robert A. Moore.....Pittsburgh
Stockton Kimball.....Buffalo
John Z. Bowers.....Utah
George N. Aagaard.....Washington (Seattle)
Walter R. Berryhill.....North Carolina
Secretary: Dean F. Smiley.....AAMC
Director of Studies: John M. Stalnaker....AAMC

Staff

DEAN F. SMILEY, Secretary; Editor, *Medical Education*
JOHN M. STALNAKER, Director of Studies
J. EDWIN FOSTER, Director, Medical Audio-Visual Institute

Committees of the Association 1953-1954

(Chairman listed first—Affiliation listed in italics)

AUDIOVISUAL EDUCATION
Walter A. Bloedorn, *George Washington*
Thomas P. Almy, *Cornell*
Clarence de la Chapelle, *N. Y. U. Post-Grad.*
William W. Frye, *Louisiana*
Theodore R. Van Dellen, *Northwestern*
W. Clarke Wescoe, *Kansas*

BORDEN AWARD
Ashley Weech, *Cincinnati*
Willard M. Allen, *Washington Univ.*
Harry P. Smith, *Columbia*
Elmer H. Stotz, *Rochester*
William S. Tillett, *N. Y. University*

CONTINUATION EDUCATION
James E. McCormack, *Columbia*
George N. Aagaard, *Washington (Seattle)*
Robert Boggs, *N. Y. Univ. Post-Grad.*
Robert Howard, *Minnesota*
Samuel Proger, *Tufts*
Frank Roberts, *Tennessee*
John B. Truslow, *Medical Col. of Va.*

EDITORIAL BOARD
John Z. Bowers, *Utah*
William B. Bean, *Iowa*
Stanley E. Bradley, *Columbia*
Alan Chesney, *Johns Hopkins*
James W. Faulkner, *Boston*
Russell L. Holman, *Louisiana State*
Chauncey D. Leake, *Texas*
Dean F. Smiley, *Secretary*

FINANCING MEDICAL EDUCATION
John B. Youmans, *Vanderbilt*
Walter A. Bloedorn, *George Washington*
Ward Darley, *Colorado*
Joseph C. Hinsey, *N. Y. Hosp., Cornell*
Vernon W. Lippard, *Yale*
Norman Topping, *Pennsylvania*

GRADUATE MEDICAL EDUCATION
Kendall Corbin, *Mayo Foundation*
Clarence de la Chapelle, *N.Y.U. Post-Grad.*
John Deitrick, *Jefferson*
Alms C. McGuinness, *Penn. Graduate*
R. L. Pullen, *Missouri*
C. J. Smyth, *Colorado*

INTERNATIONAL RELATIONS IN MEDICAL EDUCATION
Francis Scott Smyth, *California (S.F.)*.
E. Grey Dimond, *Kansas*
Frode Jensen, *N. Y. Univ. Post-Grad.*
Maxwell E. Lapham, *Tulane*
John McK. Mitchell, *Pennsylvania*
Elizabeth T. Lam, *Consultant, Com. on Internatl. Exch. of Persons*
Harold H. Loucks, *Consultant, China Medical Board*
Myron Wegman, *Consultant, Pan-American Sanitary Bureau*

INTERNSHIPS AND RESIDENCIES
Currier McEwen, *New York University*
D. W. E. Baird (Idaho, Mont., Ore., Wash.), *Oregon*
Robert Berson (Ky., N.C., S.C., Tenn.), *Vanderbilt*
Harold Jeghers (Del., D.C., Md., Va., W.Va.), *Georgetown*
Warren T. Brown (Okla., Texas), *Baylor*
Charles A. Doan (E. Ohio, W. Pa.), *Ohio State*
Gordon E. Goodhart (Ariz., Calif., Nev.), *Southern Calif.*
James E. McCormack (Conn., N.Y., part of N.J.), *Columbia*
John McK. Mitchell (Part of N.J., E. Pa.), *Pennsylvania*
Otto Mortensen (Minn., Wis.), *Wisconsin*
F. J. Mullin (Ill., Ind., Iowa), *Shimer*
Hayden C. Nicholson (Ark., La., Miss.), *Arkansas*
James P. Tollman (Kan., Mo., Neb., N.D., S.D.), *Nebraska*
Richard W. Vilter (Mich., W. Ohio), *Cincinnati*
Emil G. Holstrom (Colo., N.M., Utah, Wyo.), *Utah*
George A. Wolf Jr. (Maine, Mass., N.H., R.I., Vt.), *Vermont*
Eugene B. Ferris Jr. (Ala., Fla., Ga.), *Emory*

LICENSURE PROBLEMS
Charles A. Doan, *Ohio State*
John P. Hubbard, *Pennsylvania*
J. Murray Kinsman, *Louisville*
Frank E. Whitacre, *Vanderbilt*
William R. Willard, *State Univ. of N. Y. (Syracuse)*
Albert W. Wright, *Albany*

MEDICAL CARE PLANS
Dean A. Clark, *Harvard*
Frank R. Bradley, *Washington U. (St. Louis)*
George Hayman, *Tufts*
Henry D. Mulholland, *Virginia*
John F. Sheehan, *Loyola*
Albert Snoke, *Yale*
Maxwell M. Wintrobe, *Utah*

PLANNING FOR NATIONAL EMERGENCY
Stanley Olson, *Baylor*

(Continued on page 6)

20
YEARS'
VERSATILE, EFFECTIVE USE
PENTOTHAL® SODIUM
(Sterile Thiopental, Sodium, Abbott)
Used in Combination
• maximum compatibility with all other anesthetic agents
• reduced dosage of other agents
• quick response to the surgeon's needs
Used alone
• rapid, smooth, induction
• easily controlled levels of anesthesia
• pleasant, swift recovery
2150 published reports
Abbott

(Continued from page 4)

Mark Everett, *Oklahoma*
Thomas Forbes, *Yale*
Stockton Kimball, *Buffalo*

PROGRAM

Stanley E. Dorst, *Cincinnati*
Vernon W. Lippard, *Yale*
William Middleton, *Wisconsin*
Dean F. Smiley, *secretary*

PUBLIC INFORMATION

John L. Caughey, *Western Reserve*
Walter R. Berryhill, *North Carolina*
Joseph B. Kelly, *Johns Hopkins*
Milton Murray, *Medical Evangelist*
Ralph Rohweder, *Natl. Soc. for Med. Research*
Raymond O. Torr, *Natl. Fund for Med. Education*
John D. Van Nuys, *Indiana*
Harold C. Wiggers, *Albany*

TEACHING INSTITUTES AND SPECIAL STUDIES

George Packer Berry, *Harvard*
Philip Bard, *Johns Hopkins*
D. Bailey Calvin, *Texas*
Stanley E. Dorst, *Ex Officio*
Joseph C. Hinsey, *Ex Officio*
Thomas Hunter, *Virginia*
Carlyle Jacobsen, *State Univ. of N. Y.*
Vernon W. Lippard, *Ex Officio*
Rolf Syvertsen, *Dartmouth*
W. Clarke Wescoe, *Kansas*
John M. Stalnaker, *secretary*

VETERANS ADMINISTRATION—MEDICAL SCHOOL RELATIONSHIPS

R. Hugh Wood, *Emory*
Harold S. Diehl, *Minnesota*
A. C. Furstenberg, *Michigan*
Currier McEwen, *New York University*
Gordon H. Scott, *Wayne*
Richard W. Vilter, *Cincinnati*

Representatives to Related Organizations

ADVISORY BOARD FOR MEDICAL SPECIALTIES

Stanley E. Dorst, *Cincinnati*
William S. Middleton, *Wisconsin*

ADVISORY BOARD OF AMERICAN FOUNDATION OF OCCUPATIONAL HEALTH

Gordon H. Scott, *Wayne*

ADVISORY COUNCIL FOR THE NATIONAL FUND FOR MEDICAL EDUCATION

Walter A. Bloedorn, *George Washington*
Joseph C. Hinsey, *N. Y. Hosp., Cornell*
John B. Youmans, *Vanderbilt*

ADVISORY COUNCIL ON MEDICAL EDUCATION

Stanley E. Dorst, *Cincinnati*
Joseph C. Hinsey, *N. Y. Hosp., Cornell*
Vernon W. Lippard, *Yale*

AMERICAN COUNCIL ON EDUCATION

Ward Darley, *Colorado*
Joseph L. Johnson, *Howard*
Rev. Paul A. McNally, *Georgetown*
Edward J. Van Liere, *West Virginia*
William R. Willard, *State of N. Y. (Syracuse)*
H. Boyd Wylie, *Maryland*

COMMITTEE ON EVALUATION OF FOREIGN CREDENTIALS

Francis Scott Smyth, *California (S.F.)*
Harold A. Davenport, *Northwestern*

COUNCIL ON NATIONAL EMERGENCY SERVICE

Stanley W. Olson, *Baylor*

FEDERATION OF STATE MEDICAL BOARDS

Charles A. Doan, *Ohio State*

FELLOWSHIPS SELECTION BOARD (WHO)

Walter A. Bloedorn, *George Washington*

NATIONAL INTERN MATCHING PLAN, INC.

F. J. Mullin, *Shimer*
Currier McEwen, *New York U.*
John M. Stalnaker, *AAMC*

JOINT COMMITTEE ON MEDICAL EDUCATION IN TIME OF NATIONAL EMERGENCY

Stockton Kimball, *Buffalo*
Joseph C. Hinsey, *N. Y. Hosp., Cornell*
Stanley W. Olson, *Baylor*
Dean F. Smiley, *AAMC*
John M. Stalnaker, *AAMC*

LIAISON COMMITTEE WITH COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

Stanley E. Dorst, *Cincinnati*
Joseph C. Hinsey, *N. Y. Hosp., Cornell*
Vernon W. Lippard, *Yale*
Dean F. Smiley, *AAMC*
John M. Stalnaker, *AAMC*

MEDICAL ADVISORY COMMITTEE ON INSTITUTE OF INTERNATIONAL EDUCATION

Duncan W. Clark, *State Univ. of N. Y. (Brooklyn)*
Dayton J. Edwards, *Cornell*
Cornelius T. Stepita, *N. Y. Univ. Post-Grad.*

NATIONAL BOARD OF MEDICAL EXAMINERS

John Deitrick, *Jefferson*
Robert A. Moore, *Pittsburgh*
B. O. Raulston, *Southern California*

NATIONAL HEALTH COUNCIL

Jean A. Curran, *State Univ. of N. Y. (Brooklyn)*
Joseph C. Hinsey, *N. Y. Hosp., Cornell*
Ira Hiscock, *Yale*

SUBCOMMITTEE ON MEDICAL EDUCATION FOR NATIONAL DEFENSE

Stanley W. Olson, *Baylor*
George V. Byfield, *Illinois*
Lawrence Hanlon, *Cornell*
Stockton Kimball, *Buffalo*
John Lagen, *California (S.F.)*
John B. Youmans, *Vanderbilt*

You can prevent attacks in angina pectoris

Prolonged prophylaxis

Patients receiving Peritrate may obtain practical freedom from anginal attacks for from 4 to 5 hours with each dose. Russek and his colleagues[1] clearly showed that the patient-response to Peritrate was comparable to the effect produced by nitroglycerin . . . *but* the duration of Peritrate's action was "*. . . considerably more prolonged.*"

Uncomplicated prophylaxis

Prolonged protection given by Peritrate spares the patient the anxiety of waiting for pain to strike. Besides invaluable psychological support, Peritrate brightens the objective clinical picture —significant EKG improvement may be seen[1,2] and nitroglycerin need greatly reduced in most.[3] A continuing schedule of only 1-2 tablets four times a day, before meals and at bedtime, will:

1. *reduce the number of attacks in almost 80 per cent of patients*[2,3]
2. *reduce the severity of attacks which cannot be prevented.*

Available in 10 mg. tablets in bottles of 100, 500 and 5000.

References:

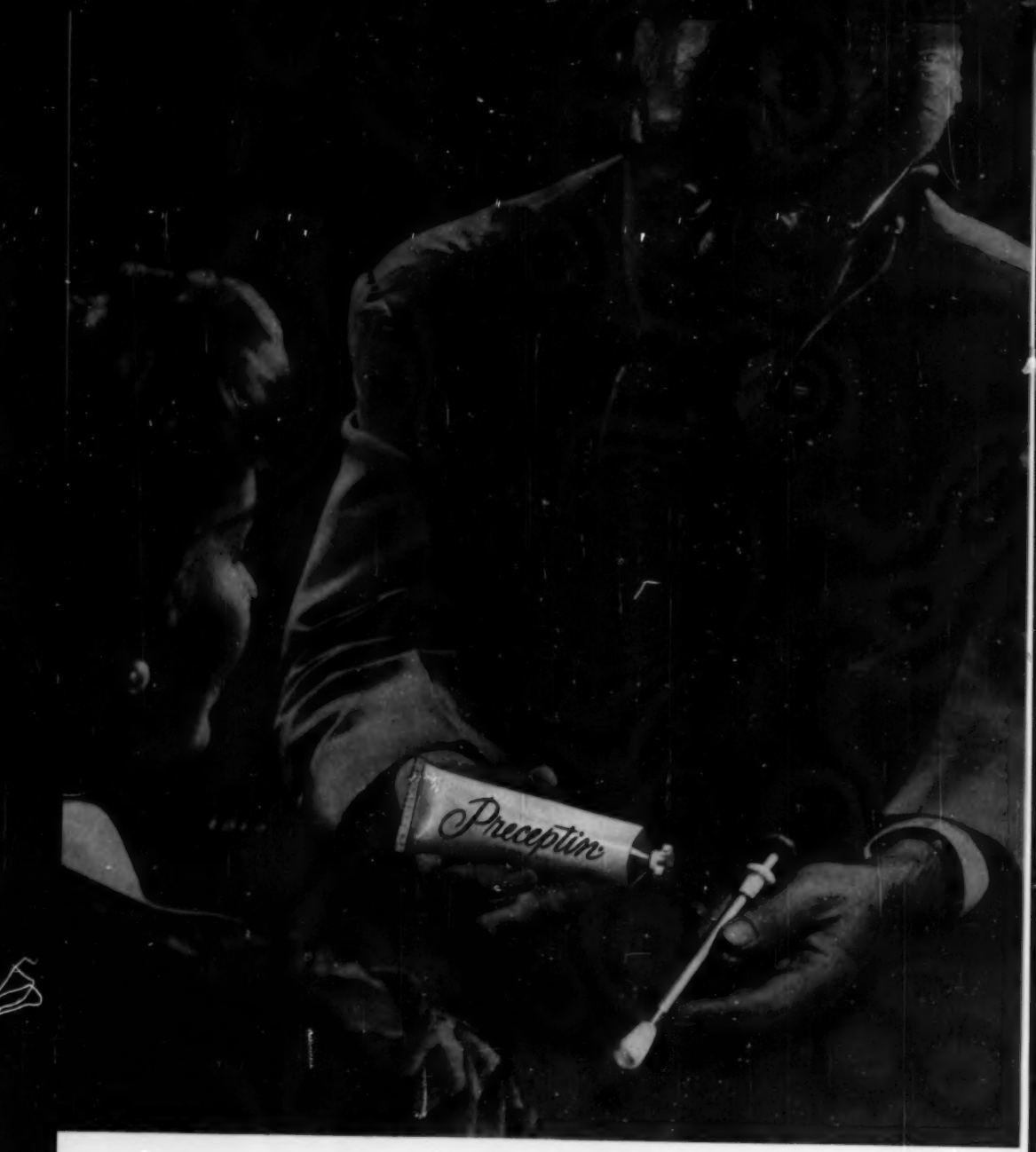
1. Russek, H. I.; Urbach, K. F.; Doerner, A. A., and Zohman, B. L.: J.A.M.A. *153*:207 (Sept. 19) 1953. 2. Winsor, T., and Humphreys, P.: Angiology *3*:1 (Feb.) 1952. 3. Plotz, M.: N. Y. State J. Med. *52*:2012 (Aug. 15) 1952.

Peritrate®

tetranitrate

(BRAND OF PENTAERYTHRITOL TETRANITRATE)

WARNER-CHILCOTT

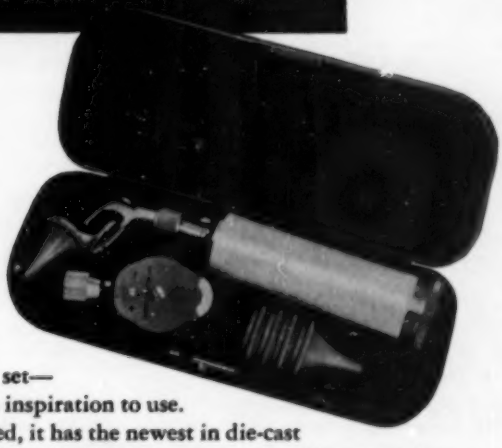


simple, effective

Ortho

conception control

NEW Bausch & Lomb
INSTRUMENT SET



Your new diagnostic set—
a pleasure to own, an inspiration to use.
Completely redesigned, it has the newest in die-cast aluminum heads, positive-locking bayonet type handle connections, brilliant flicker-proof lighting from pre-focused lamps, and positive thumb-tip control of light intensity. Weight, balance and finish—all contribute to a new luxury "feel". Your supplier will show it to you—or write: Bausch & Lomb Optical Co., Rochester 2, New York.

BAUSCH & LOMB
SINCE B&L 1853

Calendar of Meetings

ASSOCIATION OF AMERICAN MEDICAL COLLEGES 66th Annual Meeting. October 24-26; Swampscott, Mass. (New Ocean House).

Teaching Institute on Anatomy, Histology, Embryology and Anthropology—October 17-21; Swampscott, Mass. (New Ocean House). (Attendance by invitation only).

American Academy for Cerebral Palsy—November 4-6; Williamsburg Inn, Williamsburg, Va.

American Academy of Dermatology and Syphilology—December 4-9; Palmer House, Chicago.

American Association of Medical Clinics—November 12-14; Jung Hotel, New Orleans.

American College of Surgeons, Clinical Congress—November 15-19; Atlantic City, N. J.

American College Public Relations Association—June 30, July 1 and 2, 1955; Chicago.

American Dental Association—November 8-11; Miami, Fla.

American Psychosomatic Society—May 4 and 5, 1955; Claridge Hotel, Atlantic City, N. J.

American Society of Tropical Medicine and Hygiene—November 4-6; Hotel Peabody, Memphis, Tenn.

Association of Military Surgeons of the United States—November 29-December 1; Hotel Statler, Washington, D. C.

Congress of the International Diabetes Federation—July 4-8, 1955; Cambridge, England.

Congress of the International Society of Urologists—April, 1955; Athens, Greece.

Congress of Neurological Surgeons—November 4-6; The Waldorf-Astoria, New York.

European Congress on Rheumatism—June 13-17, 1955; Scheveningen, The Hague, Netherlands.

International Anatomical Congress—July 25-30, 1955; Paris, France.

International Congress of Biochemistry—August 1-6, 1955; Brussels, Belgium.

International Congress of Comparative Pathology—May 26-31, 1955; Lausanne, Switzerland.

International Congress of Military Medicine and Pharmacy—November 7-12, Luxemburg, Luxemburg.

International Congress of Plastic Surgery—August 1-4, 1955; Stockholm, Sweden.

Inter-American Congress of Radiology—April 24-29, 1955; Shoreham Hotel, Washington, D. C.

Inter-American Session, American College of Surgeons—January 11-14, 1955; Lima, Peru.

Japan Medical Congress—April 1-5, 1955; Kyoto, Japan.

Latin-American Congress of Physical Medicine—February 14-19, 1955; Lima, Peru.

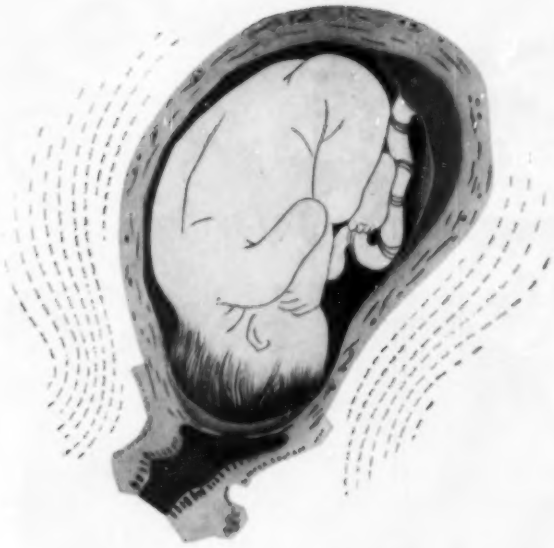
Interstate Postgraduate Medical Association of North America—November 1-14; Municipal Auditorium, Minneapolis, Minn.

National Medical Public Relations Conference—November 28; McAllister Hotel, Miami, Fla.

National Society for Crippled Children and Adults—November 3-5; Statler Hotel, Boston.

Index to Advertisers

Abbott Laboratories 5
Appleton-Century-Crofts, Inc. 3
Assn. of Am. Med. Coll. 76
Bausch & Lomb Optical Co. 9
Borcherdt Malt Extract Co. 13
Cambridge Instrument Co. 68
Harvard University Press 76
Lea & Febiger 70
Lippincott, J. B. & Co. ..... Back Cover
Little, Brown & Co. 74
Macmillan Co. 60-61
McGraw-Hill Book Co., Inc. ..... Inside Front Cover
Ortho Pharmaceutical Co. 8
Parke, Davis & Co., Inc. 11
Chas. Pfizer & Co. ..... Inside Back Cover
W. B. Saunders Co. ..... Front Cover, 1
Smith, Kline and French Laboratories 66
Taylor Instrument Co. 78
Warner-Chilcott Laboratories 7
Wyeth, Inc. 14
Winthrop-Stearns, Inc. 12
Woodward Medical Personnel Bureau 77



produces contractions

*"clinically identical to normal, strong, physiological labor"**

PITOCIN®

AN OXYTOCIC OF CHOICE

PITOCIN is widely used in obstetrics because of its physiologic effect on uterine musculature. In addition, the fact that it is notably free from vasopressor action is often a significant advantage. Intravenous administration of diluted **PITOCIN** in emergencies makes possible ready control of dosage and response.

PITOCIN is valuable in treatment for primary and for secondary uterine inertia, for postpartum hemorrhage due to uterine atony, for the third stage of labor, for induction of labor, and during cesarean section to facilitate suturing the uterine wall.

*Kaufman, R. H.; Mendelowitz, S. M., & Ratzan, W. J.: *Am. J. Obst. & Gynec.* 65:269, 1953.

PITOCIN (oxytocin injection, Parke-Davis) is supplied in 0.5-cc. (5-unit) ampoules, and in 1-cc. (10-unit) ampoules, in boxes of 6, 25, and 100. Each cc. contains 10 international oxytocic units (U.S.P. units).

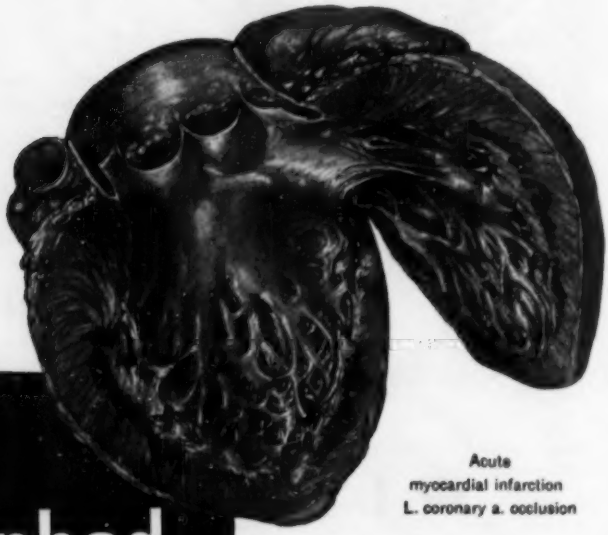
MEDICAMENTA VERA

Parke, Davis + Company

DETROIT, MICHIGAN

—in the severe shock—

secondary to myocardial infarction



Acute
myocardial infarction
L. coronary a. occlusion

WINTHROP

Levophed

BITARTRATE

..... may be life-saving

A series of 14 cases of severe shock accompanying myocardial infarction was treated by various methods. All of the 6 patients who received Levophed recovered despite the presence of congestive heart failure.[1]

The practically instant pressor effect of Levophed—within 10 to 30 seconds—may usually be maintained at desired levels almost indefinitely.

Write for detailed literature.

Winthrop-Stearns INC.
NEW YORK 18, N. Y. • WINDSOR, ONT.

1. Gazes, P. C., Goldberg, L. I., and Darby, T. D.: *Circulation*, 8: 883, Dec., 1953.

Levophed bitartrate, brand of levarterenol bitartrate

For HARD, DRY STOOLS OF CONSTIPATED BABIES

Borcherdt

MALT SOUP Extract*

A gentle laxative modifier of milk. One or two tablespoonfuls in the day's formula—or in water for breast fed babies—produce a marked change in the stool.

SAVES DOCTOR'S TIME, TOO!

Fewer phone calls from anxious mothers. Malt Soup Extract is merely added to the formula. Prompt results. Easy for mother to prepare and administer. Does not upset the baby.

*Specially processed non-diastatic malt extract neutralized with potassium carbonate. In 8 oz. and 16 oz. bottles.

Send for Samples and Literature

BORCHERDT MALT EXTRACT CO.
217 N. Wolcott Ave. • Chicago 12, Ill.

GOOD FOR GRANDMA, TOO!

Borcherdt

MALT SOUP Extract*

A New Dietary Management for

CONSTIPATED ELDERLY

A bowel content modifier that softens dry, hard stools by dietary means without side effects.[1] Acts by promoting an abundant fermentative bacteria in the colon, thus producing soft, easily evacuated stools. Retards growth of putrefactive organisms. By maintaining a favorable intestinal flora, Malt Soup Extract provides *corrective therapy for the colon, too!*

DOSE: 2 tablespoonfuls b.i.d. until stools are soft (may take several days), then 1 or 2 Tbs. at bedtime.

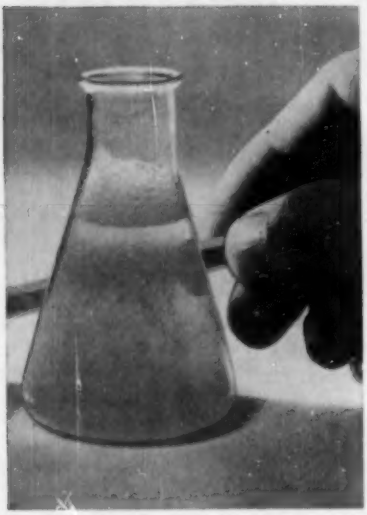
*Specially processed malt extract neutralized with potassium carbonate. In 8 oz. and 16 oz. bottles.

1. Cass, L. J. and Frederik, W. S.: Malt Soup Extract as a Bowel Content Modifier in Geriatric Constipation, Journal-Lancet, 73:414 (Oct.) 1953.

Send for Sample

BORCHERDT MALT EXTRACT CO.
217 N. Wolcott Ave. • Chicago 12, Ill.

REQUIRES NO ACID BUFFERS!



". . . the use of added acid buffers is not required for oral administration; . . . because of the limited solubility of benzathine penicillin G [BICILLIN] *in the stomach, it is not highly susceptible to destruction by gastric juices."*[1]

After ½ hour in artificial gastric juice (pH 1.6), BICILLIN remains relatively insoluble, and is nearly 75% active.

● Unlike other forms of penicillin, Oral BICILLIN requires no acid buffers to resist gastric destruction. This is because Oral BICILLIN is relatively insoluble. Acid tests[2] show that this insolubility persists for hours in artificial gastric juice (pH 1.6), that Oral BICILLIN retains full penicillin potency of its undissolved portion—71.7% after ½ hour, 31.1% after 3 hours, 18.1% after 6 hours.

Resistance to acid destruction is a surety factor in penicillin absorption—a safeguard for therapeutic effect.

Supplied: Oral Suspension BICILLIN: Bottles of 2 fl. oz. —300,000 units per 5-cc. teaspoonful; 150,000 units per 5-cc. teaspoonful. Tablets BICILLIN: Vials of 36—200,000 units per tablet; bottles of 100—100,000 units per tablet.

1. *American Medical Association: New and Nonofficial Remedies, 1954. J. B. Lippincott Co., Philadelphia, p. 147*
2. *Scott, R. L., and others: Antibiot. & Chemo. 4:691 (June) 1954*

Wyeth®
Philadelphia 2, Pa.

ORAL BICILLIN®

Benzathine Penicillin G (Dibenzylethylenediamine Dipenicillin G)

PENICILLIN WITH A SURETY FACTOR

Public Relations in the School of Medicine

WALTER A. BLOEDORN

THE SUBJECT of this paper is public relations in a school of medicine, from the point of view of the dean's office.

There are a number of possible "points of view" from which the subject might be approached—depending upon the happy, sad or indifferent experiences any particular dean's office may have encountered in its excursions into public relations. Some of the points of view might include:

- How little public relations can we get by with?
- How can we keep reporters from bothering us?
- How can we get someone else to take it all off our hands?
- Or, away over at the enthusiastic end of the spectrum: how can we get a lot of good publicity for our medical school?

All of these points of view fail to take into consideration any critical evaluation of the public relations obligations of a school of medicine. Having thus set up a number of straw men and demolished them, let us now attempt to estimate the public relations responsibilities of a medical school.

First, it might be well to consider some of the things public relations is —and is not. Public relations is not primarily an effort to influence public opinion so that it is favorable to us; it is not just avoiding unfavorable publicity; it is not getting our name in the papers at every possible opportunity. In a very broad sense, public relations, for any individual or for any institution, including a medical school, is taking an appropriate role in the activities of the community, and fulfilling maximum obligations to the community. But in a more specialized sense, public relations has to do with communicating with the public. I submit this definition: public relations is making known to the public all the available information that it needs or wants to know, in a form that it can readily understand. This simple, straightforward approach divests public relations of all misunderstanding, mistrust and mystery. It is practically foolproof—an honest man does not have to waste energy trying to remember what he said, or failed to say, last week.

These definitions are quite applicable to the public relations of a medical school. Certainly medical

---

Dr. Bloedorn is dean of George Washington University School of Medicine and chairman of the Association's Committee on Audiovisual Education. This article is adapted from his address at the American College Public Relations Association meeting, June 1954.

schools have important roles in the activities of the community, and medical schools are largely fulfilling their obligations to the community. The medical school has nothing to conceal or distort, it pleads the cause of no special interest. But the medical school, in fulfilling its obligations, becomes the source of an enormous amount of information that the public needs and wants to know, in terms that it can easily understand.

Certainly the public has a vast and legitimate interest in all aspects of health and medicine. The public gives dimes and millions of dollars to volunteer health organizations, buys seals and stamps at Christmas and Easter and other holidays for health causes. Its legislators appropriate millions of dollars for local, state and federal health and research programs. The public spends millions of dollars for health and hospital insurance. It pays its doctor's bills—usually—and it pays the druggist for its prescriptions. It reads millions of words about health, medicine and research in thousands of newspapers, magazines and books. It listens to or watches hours and hours of radio and television programs and motion pictures concerning health and medicine. The public wants to know how to keep well and live longer or, in the event of sickness, how to get well. Yet despite this vast interest in medical subjects, and despite this vast amount of reading, listening and looking, there remains today a vast amount of ignorance, confusion and misunderstanding among the public in many health and medical areas—to the detriment of everyone engaged in any kind of health activity, and to the detriment of the public. This does not mean, of course, that the public today is not more enlightened than probably ever before in history; it does mean that the public needs and wants more information than ever before, and particularly in a form that it can understand.

Everyone in any way connected with the vast, intricate network of medical and health activity shares the responsibility of making such understandable information available. This includes the entire medical profession, all governmental and volunteer health organizations and all related industrial and commercial establishments. And certainly it includes all medical schools, for there is scarcely an area in health and medicine which does not stem from the medical school, and which the functions of the medical school do not cross. This broad concept of the medical school recognizes its obligation not only to educate medical students and physicians in postgraduate instruction, but also to share the responsibility of educating the public.

I think it is safe to say that in the past medical schools largely have neglected this responsibility, in part because they have not recognized it. In general most medical schools seem to have ignored public relations; they have been too isolated; they have been so busy training physicians and attempting to meet the mounting costs of medical education that they have overlooked the importance of taking the public into their confidence with respect to their problems and achievements.

As a result, the public, not fully informed of the facts, has formed its own impressions, many of them erroneous. It is not surprising, therefore, that many false beliefs exist among the public regarding medical schools. These include the ideas that only a small fraction of those who apply for admission to medical schools are admitted; that only students with al-

most impossibly high premedical scholastic averages are admitted to medical schools; that influential friends can help a student gain admission to a medical school; that the medical profession and the medical schools are attempting to limit the number of physicians by limiting admissions, by limiting expansion of medical schools and by limiting the number of medical students who complete their study and receive their degrees. These are just a few of the commonly-held false beliefs about medical schools, compiled by a committee on public information of the Association o American Medical Colleges. In fact, an example of the slowness with which medical schools have recognized their public relations responsibilities is the circumstance that only in recent years has the Association of American Medical Colleges itself had a committee on public relations.

Public Interest

Perhaps it has never occurred to some of us that the public would be interested in knowing more about medical schools. But why shouldn't the public be interested? Health, next to life, is man's most prized possession. Everyone is interested in health—the health of himself, his family, his community and his nation.

How many people know the full extent to which the general level of health in the United States has moved steadily higher and higher, year after year? How widely is it realized that the quality of health and medical services available to civilians and members of the armed forces of the United States is not exceeded anywhere in the world? Possibly the public is vaguely aware of these facts. But the public almost certainly does not fully realize the part the medical schools have played in making these achievements possible. The importance of the medical schools to the nation is far out of proportion to their number, their size and their cost of operation. Almost everyone is aware of the importance of his doctor when he becomes ill or injured, or if he requires a life-saving operation. Few are so well aware, however, of the less obvious ways in which physicians are absolutely essential to the maintenance of the national health, welfare and the national defense. The adequate functioning of all civilian, veterans, military and naval hospitals, of every health department and of the medical services of the armed forces all depend upon a steady flow of qualified physicians from the medical schools.

Every community or national program for the control of poliomyelitis, tuberculosis, heart disease, cancer or neurological and mental diseases depends for its success upon the availability of well trained physicians. Programs for maternal and infant health, school health programs and health education all require the guidance and services of physicians. Industrial hygiene, rural health, labor union health programs, rehabilitation of the physically handicapped and every field of preventive medicine depend for their success upon physicians, and in turn upon the medical schools who train physicians — the sole source of physicians.

How many people realize that the total budgets of all medical schools in recent years have been running a little over $50 million—about one-fourth of the national annual expenditure for phonograph records? And how many realize that receipts from tuition charged to medical students provide little more than one

quarter of the total expenditures necessary to provide training for the medical students enrolled?

How many people know that a major portion of all medical research, which is leading to increasing knowledge regarding the causes, prevention and treatment of diseases, is conducted in medical schools and teaching hospitals affiliated with medical schools?

These are just some of the broad, general areas in which the medical schools have neglected adequately to inform the public. There are very many subjects and events related to each individual medical school about which the public would like to know. These include facts about the admission, progress and graduation of classes each year; professional and community activities of faculty members; plans, purposes and achievements in research; postgraduate medical education; activities and facilities of hospitals affiliated with the medical schools, and cooperative activities with medical societies, health departments and innumerable other organizations.

Evidently the school of medicine has before it a big job of public relations. How is the job going to get done, and who is going to do it? It just happens that the dean's office in a medical school is called upon to do almost anything and everything. The medical school's public relations is a responsibility of the dean's office.

It would be ideal if every school of medicine had the full-time services of an experienced public relations man with special interests and knowledge in the fields of medicine and health. Such a man would be an invaluable member of the dean's staff to help the medical school fulfill its public relations responsibilities with respect to its many teaching, research and hospital activities. It is extremely difficult for people in the general public relations office of a university to become familiar enough with the highly specialized subject matter of a medical school to interpret it properly to the public, especially when their public relations work for the medical school is only incidental and occasional to their university work.

But, unfortunately, only a very few medical schools as yet have realized this ideal of having the full-time services of anyone trained in the highly specialized techniques of public relations — making information available so that it is useful to the various media of public communication such as newspapers, magazines, radio, television and motion pictures.

The Dean's Responsibility

The assistance of such a public relations man is a goal for which the medical school should strive. But, meanwhile, the public relations work must be done if the medical school is to gain public understanding and support. The dean's office, with whatever assistance it can obtain from other faculty members, must do the job if no professional public relations worker is available. Lack of time and the pressure of other responsibilities is no excuse. The dean must find time to know and visit his local newspaper editors. He should welcome every reporter and every inquiry from the press, the radio or television, and he should make every effort to see that such inquiries receive prompt, courteous, informative responses. He should seek, whenever possible, to inform newspapers and other media of public information in advance of events in which he believes they will have an interest.

Once a friendly working relationship built on mutual respect and confidence has been established with the various people and institutions whose job it is to keep the public informed, the public relations responsibilities of the medical school are well on the way to being met.

But person-to-person communication must not be overlooked. The dean and all members of his faculty should accept every opportunity to speak before groups—not just the large prominent organizations or meetings of the distinguished, but also the small, neighborhood groups of plain citizens—this is an important part of the medical teacher's community responsibility.

In considering the public relations responsibilities and opportunities of the school of medicine, it is well to remember that all individual and public health lies in the hands of physicians—and that every physician is first a medical student. Every physician, whether he realizes it or not, is an instrument of public relations, both with respect to his service to the community and his interpreting to individuals and groups the meaning to them of what he is trying to accomplish. The medical school is the place to begin training the physician to understand his public relations responsibilities. Much of this training should be by example, as is a great deal of his clinical training.

Many physicians, research workers and teachers in the basic sciences regard professional public relations workers, newspaper reporters and others engaged in the business of supplying information to the public with various mixtures of distrust, misunderstanding and apprehension. This is in part because of unfortunate experiences in which medical, health and research information often has been presented to the public in sensational, distorted or inaccurate form. Very often, however, the blame for this must be shared by the medical or scientific source which failed to provide full information, properly explained, to the newspaper reporter or other worker engaged in the various professions of informing the public. Such unfortunate incidents can be greatly reduced, if not eliminated entirely, by closer working relationships between the sources of information and the media of public information.

Only by freely making known and interpreting its purposes, activities and needs to the public can the medical school gain public understanding and support—and only with public understanding and support can the medical school achieve its goals; this truth applies as well, of course, to the entire fields of science, research, medicine and health.

Education for Continuity of Care

JOHN M. DORSEY, PAULINE WILSON KNAPP, LAWRENCE K. FRANK

DEAN GEORGE PACKER BERRY, in the notably helpful October 1953 issue of the Journal of MEDICAL EDUCATION, wrote, "Scientific medicine must become comprehensive medicine, yet not become thereby any less scientific."

In an address to the Association of American Medical Colleges in November 1952, Dr. David Barr called attention to a basic health principle, "One of the prime essentials of preventive medicine is continuity of care. Access to the physician should be unobstructed and not dependent upon the accident of illness."

Today medical practice is concerned increasingly with the problems of health care, preventive medicine and health education. This forethought is evident in health supervision for pregnant mothers, babies, growing children, the aging and in a variety of efforts to provide preventive medicine for all others. The medical school today is renouncing isolation in favor of realizing its full potentialities in its university and wider community setting. The underlying objective in all medical education is being upheld: treat your patient as yourself.

Dr. Dorsey is chairman of the department of psychiatry, Wayne University College of Medicine; Dr. Knapp is director of and Mr. Frank is consultant to the Merrill-Palmer School. This article was prepared with the assistance and collaboration of Morton Levitt, department of psychiatry, Wayne medical school; Mason W. Mathews, chairman of laboratory service, Merrill-Palmer School, and staff members who participated in the project.

It is usually the religious educator who is most wide awake to the harmfulness in discontinuous self care. As R. McNair Wilson pointed out in his valuable little volume on the doctor of the future, "Once upon a time the priest was the doctor; tomorrow the doctor may well have become the priest, in a new sense of the word."

Deans of medical schools are assuming their proper leadership in medical education and are correspondingly watchful of what Dean Berry has described as the "process of splintering" brought about by specialization. Educators generally are providing warnings with regard to the possible misuse of specialization. "While specialization is to be encouraged as a proven technique for the acquisition of knowledge and for its application in our complex society, we must strive to educate as many persons as possible to understand how specialized knowledges fit together for the constructive interests of society as a whole . . . in medicine, our doctors tend to receive insufficient understanding of their relation to society as a whole."* Dean Gordon H. Scott, of Wayne University Medical School, with deepest respect upholds the health significance of human forces of all kinds, actively encouraging the university's wide

*Report of the Study for the Ford Foundation on Policy and Program. Published by the Ford Foundation. Detroit, 1949, p. 41.

opportunities for enlightenment about the personal elements in health.

The physician in training needs, in addition to his many other skills and abilities which are the classic equipment of the physician, both an awareness and the increasing capacity to perceive and to interpret normal human growth as exhibited by living, growing children, engaged in the fullness of living where they can be observed and appraised in the light of their known and recorded developmental histories. Likewise, as indicated by the programs at Harvard, Yale, Pennsylvania, Cornell, Rochester, Boston, Western Reserve, to mention only a few, the medical student needs to observe people outside the hospital and clinic in their normal life situations, preferably in company with a public health nurse, a social worker or other professionals engaged in visiting homes, schools and factories.

Ever presenting new responsibilities of the physician require that the course of medical instruction itself be under continuous study. This paper is concerned with the importance of the medical student's helping himself to understand the so-called normal healthy child and his biological functioning from infancy on. It invites more fundamental recognition of the processes of human growth and how they operate in the continuum of the human constitution to produce both normal and abnormal behavior in children and adults. This comprehension is essential to our taking and using well the medical history of our patient; to our seeing that health is the virtue of healthy living, and that illness derives from disobedience to the laws of human nature.

Clinical and laboratory studies reveal synthesizing aspects and enlarging dimensions of the growth process. They show that there is a regular orderly sequence of human growth and development, like a broad highway along which all children must travel; but that each child, with his unique heredity and family nurture, will pass through that sequence of changes and will exhibit at each stage of his development, the size, shape, weight and various capacities, susceptibilities and vulnerabilities that are uniquely his own. He may or may not exhibit the spirit of this inateness, self insight, and thereby hangs a tale either of health or woe. Human dignity is either innate or not at all. What else is the meaning of the concept of his "whole" patient but strictly an issue of the physician's concept of his own "whole" self? The meaning of his concept of "comprehensive" medicine is subsumed by the student's meaning of caring for his own health. Medical schools are constantly reorienting themselves to meet the demand for greater and greater insight of the patient and physician.

Perspective

Health care and preventive medicine call for clinical ability to recognize the processes of human growth as they are operating in unique organism-persons who ordinarily do not exhibit prominent symptoms which guide diagnosis and treatment. The physician, therefore, must be able to appraise the individual in terms of his maturation; not just his status at that moment, but his progress, as Dr. Wilton Krogman once remarked. His progress means how adequately and effectively are the growth processes operating in that specific organism-person, what are his immaturities and his precocities, his trends and prospects. How the

physician answers these questions will govern his advice and guidance of that person toward healthy, vigorous living, appropriate to his age and stage of maturation.

Thus, our student's introduction during his undergraduate training to the complex problems taxing each mind in every family is regarded as a most valuable preparatory study. We are just beginning to see the overwhelming kinds of events in the life of the infant and child as they occur in even the best of homes. Full appreciation that family living is not only the most wonderful but also the most trying of all living is a rare insight which, when attained, brings the fullest comprehension of the meanings of health and illness. Whoever is capable of observing that a family runs its home for parents as well as for children will have no difficulty accepting the observations that medical schools are maintained for faculty as well as for students, and hospitals are maintained for physicians and nurses as well as for patients.

The Wayne Program

As one approach to these humanizing educational needs of medical students, since 1947 Wayne's department of psychiatry, in collaboration with the Merrill-Palmer School, has been developing a program to give third-year medical students some introduction to understanding of human growth and behavior of "well" children, observed in the various age groups in the school. This "personal view"-pointed program is wholly appropriate in the department of psychiatry, as a part of the student's psychiatric clerkship, in that it provides further incentives for active learning designed so that the student may help himself to recognize the "person in the patient" and to realize that each person has had a "forgotten childhood," which is still operating in him today for his benefit or for his defeat. However, this medical school living with insight is in no phase limited to any one department; on the contrary, all of the medical disciplines prize its worth, expect psychiatry to advance it and support their department of psychiatry specifically for that purpose.

This active affirmation of the longitudinal approach aims at creating a greater awareness in the medical student of his patients who will come to him severally at various ages and stages in life and yet must be recognized comprehensively as the same basic, persisting organism and personality.

In taking a history the physician is committed to this longitudinal conception of his patient, as a bundle of varying maturities. Often the patient cannot or will not tell the most important events in his previous history. The physician, therefore, is compelled to extrapolate from his patient's recital and try to imagine what happened in childhood and adolescence, in a variety of social-cultural settings and diverse family patterns. He no longer can assume that his patient had the same kind of childhood and family experience as he did.

Every patient, as Elton Mayo once said, is a frightened person, often in a panic when his internal world becomes disturbed and painful, and so often desperately eager for some kind of reassuring attention. He often exhibits, in his state of distress, the kind of behavior and emotions that children show, whether two years old or older, depending upon how much of those earlier patterns

he may have renounced or repressed.

Moreover, with the widespread confusions and conflicts in our contemporary life, patients are often tense, anxious, burdened with various habits and attitudes which constitute health disorders or chronic ills. To treat these personalities or alleviate their disorders, the physician must rely upon his capacity for empathy, which means being in communication with himself and able to recall some of his own childhood experiences and feelings in order to realize what the patient may be suffering.

Enough has been experienced by educators to indicate that cultivation of acquaintance with well infants, preschool children and school age children in their normal "life space" has a place and a significance in medical education which more than justifies the valuable time allotted to it. The growing recognition of human growth and development as the core of medical education, and of the physician's own person as his only instrument for evaluating the person in his patient, indicates that our present very modest exposure to child development is likely to be enlarged and greatly elaborated in the years ahead.

The Merrill-Palmer School, a privately endowed educational institution, is concerned with research and teaching of various aspects of human growth and development and human relations, with especial focus on family life. It seeks consultation from outside sources in an effort to secure regular evaluations of its methods. To meet the increasingly comprehended needs of families, over the years the school has established a corresponding service to families which provides students with direct contacts and opportunities to observe living children and parents at successive stages in development. Coming to the Merrill-Palmer School, medical students find opportunities to observe children of different ages through service, and thus make an active start towards considering the value of continuous care. As Dr. Alan Gregg has sagely observed, one of the proper jobs of the medical educator is "the art of bringing on a demand."

School Services

The school offers an *infant service* for young parents. Students observe babies and their mothers who come bi-monthly during the baby's first two years for physical and developmental tests that become part of that child's cumulative longitudinal record. It is worthy of note that opportunity for similar or equivalent observation is available to health educators in almost every community, in such situations as well-baby clinics or centers operated by hospitals and public health departments.

The school provides a *play group* for children, 18 to 30 months old, who come with their mothers three mornings a week. While mothers look on and observe and discuss what is happening, the children engage in a variety of play and creative activities under the direction of skilled workers and assistants. Observation of the play group provides understanding of this period of "little adolescence" which is often of crucial significance in the child's development.

The youngster who is now able to walk is no longer a passive "doll" easily managed by mother. He is actively mobile, eager to explore the world and assert his independence by getting into everything and resisting and challenging adult author-

ity. This is the so-called negative stage, when parent-child conflicts often begin over obedience, discipline and emotional explosions which are wholesome expressions of the child's increasing maturity and his rapid development as a personality. Many of the persistent attitudes, feelings and patterns of relationship that will appear again and again in the adolescent and the adult are being established in this early period of life.

Similar play groups are to be found in communities with cooperative or neighborhood play schools, cradle roll groups in churches and other local organizations.

In the *nursery school* at Merrill-Palmer, 35 children from two and one-half to five years old live from 8:30 A.M. to 1 P.M. each morning for individual and group activities with toys, play and creative materials.

Here students observe the children as they live and also watch how trained teachers and student assistants guide and supervise the children's activities, resolve conflicts and generally manage to keep each one as happy and busy as he or she individually can be in a setting especially designed and equipped for preschool children. They see children beginning to learn to share, take turns, engage in dramatic play, draw and make use of clay, rhythm and music, and all the ways in which children can discover themselves and relate themselves to their world and their fellow beings.

At Merrill-Palmer, observation of nursery school children is focussed upon each individual, how he behaves alone and with others, what he does and how he reacts to the free play situation. It is remarkable how in his play a child will reveal his essential personality make-up and give fairly clear indications of his family life. A child at this age exhibits a whole range of behavior patterns which, with more or less disguise or elaboration, are shown by many adults—the active, often aggressive, the shy, timid, withdrawn, the highly verbal and the more or less quiet reticent, the self-confident and the anxious, the submissive, the outgoing and friendly, the self-contained, the aloof and seemingly indifferent—and nearly all the other categories we use in describing human activities and relations.

Again it may be said that similar opportunities are available in almost every community for observation of the preschool child in nursery schools, kindergartens, cooperative play groups, day care centers, Sunday school classes, orphanages, camps, playgrounds, wherever young children are brought together for longer or shorter periods of time, including playrooms in department stores and the children's play spaces in drive-in theaters. While there may be little or no developmental history available for some of the individuals, the children are there, offering possibilities for direct observation of their exceedingly significant human development in this stage.

In order to observe the continuity of normal growth and maintain contacts with the children who have been studied throughout the nursery school years (and usually in the earlier play group and infant service), Merrill-Palmer operates *club groups* for boys and girls from five to 15 years of age. Each club numbers some eight members who meet once a week with a student leader under the supervision of a trained group leader. As the club members go about their own activities in meetings, outings and camping, observations of them are recorded for the longitudi-

nal records on each child, which by this age constitute a rich body of life history materials not only for the child but for his family. In this setting medical students observe at least one club group which offers an approach to the way of living of the school age child and young adolescent.

Groups of children are available in most communities for similar observation in various organizations, boy and girl scouts, 4H clubs, church groups, city playgrounds and recreation centers, boys' and girls' clubs and settlement houses, etc. Here are the living children engaged in the multifarious activities of school age, striving to cope with the demands of school, peer groups and associated requirements, learning to act and relate themselves to others as they establish personality patterns.

These various opportunities at Merrill-Palmer have been developing and evolving during the past 30 odd years, guided by a continual search for ways of giving students, now including medical students, the kinds of experiences and the direct contacts with children and families which will provide direction toward gaining understanding and insight and carrying on research and experimentation in new methods, materials and techniques. While the school has been able to provide the facilities of high quality and scope, equivalent opportunities in other communities, as pointed out above, are awaiting exploitation by medical schools, schools of nursing, schools of social work, teachers' colleges, indeed all the agencies concerned with education of professional workers and with inservice training of staff. Understanding of human growth and personality development is the procedure for gaining insight and improving technical and professional capacities.

Since the aims and objectives of the department of psychiatry at Wayne and of the Merrill-Palmer School are similar, despite their different programs and students, this joint program for medical students has developed as a genuinely cooperative enterprise. What was desirable for medical students could be provided by Merrill-Palmer. The staffs of both institutions, however, had to learn to work with each other, to participate in a process of mutual approval and evaluation of the medical students and of the school program and staff presentations.

The periods of discouragement, which are inevitable in the process of working together, are offset by belief in the common goal and by realization that it requires learning on the part of staff as well as of students if this goal is to be upheld. Concurrently and of great practical value, the student has an opportunity to live in a cooperative and collaborating way with his nonmedical fellow workers.

Out of this specific context has evolved the present program which is still undergoing alterations and improvements and, it is hoped, will continue to improve. As now operating, the medical students visit the school once a week for a period of four or five weeks. During the past four years, 250 medical students have participated in this activity.

Student Orientation

Before going to Merrill-Palmer, the students are prepared for their visits with an explanation of how these observations are considered relevant and important to their future work as physicians dealing with parents and children. They are further oriented at the school to the

significance of what they are to see in terms of their psychiatric clerkship with its concern with personality and its developmental history. For their immediate use and future references, each student is given a "packet" of some 35 pamphlets, reprints and monographs dealing with child growth and personality development and methods of child care and rearing. These packets are provided by the Michigan State Department of Health and include a number of U. S. Children's Bureau pamphlets.

This practice of preliminary orientation and focussing of attention is repeated at each visit, specifically in terms of the child or children the students are to observe. A summary of the developmental history of each child is offered. In addition, the students are invited to watch for and to note what the child does, what the mother does (when present as in the infant service and play group), what each examiner, teacher, student assistant does, and especially how he or she deals with the child.

Since medical students undergo much didactic teaching and passive learning in their preclinical work, they need and like to have some purpose and intention to focus their awareness and develop their perception of what is happening before their eyes but may not be perceived. This preliminary orientation is designed to give the students a "set" of expectations and curiosities so that these visits to the school will be meaningful and productive.

Observation of normal growth does not always seem the thrilling experience it is since it often fails to provide meaning which is exciting enough for the untrained observer.

It is being realized that observation is not a simple act of looking with the eyes, nor is it easy for the student to achieve the necessary awareness and understanding of what he may be seeing so that he can feel it in meaningful terms. Nevertheless, the student can learn to recognize in every observed situation, no matter how little action is apparent, that many facets of human development are being revealed which uncover the child's unique personality.

When this kind of orientation must be given by nonmedical personnel—specialists in their fields—to medical students, there are initial obstacles and resistances to be overcome. Only slowly and gradually do there develop the mutual acceptance and sharing of knowledge and of differing professional concerns which reward combined efforts.

A medical student, like everyone else, is a personality with his individual life experiences, beliefs and convictions, idiomatic ways of perceiving, feeling and reacting. His individual personality patterns may interfere with his ability to perceive and to observe what a child is doing or may bias his observations and lead him to misinterpret and distort what he sees.

Since medical students share the common belief and traditional assumptions about children and human nature, they are inclined initially to make the same evaluations and moralistic judgments as do others. Therefore, it is not always easy for a student to look at a child without evaluating his goodness or badness rather than with concern for understanding how that child is trying to relate himself to his world, to his fellowman and to himself, how he is striving to meet the demands and requirements of his social life, to master the many lessons he must learn for living in his society.

It calls sometimes for a radical revision of the student's viewpoint to see that a child's misbehavior, his emotional disturbances, are cries for help from a young personality who is finding the world too difficult, too lonely, too frustrating and oppressive.

But only by such revision in his perspective can the student develop his capacity for self endurance which will be needed in his future work as a physician, capable of helping mothers and children and also quick in recognizing the child in his adult patients.

As the student observes what normal children do and studies the developmental history of these children, his future ability to "take a history" with a due sense of its current significance, and to interpret it meaningfully, will be enhanced by these experiences; his tendency to distort the patient's history by his unconscious bias or personal feelings may begin to be sensed by him.

Summary and Discussion

A general aim of Wayne medical school is to provide experiences in which every student can study and discipline himself in the comprehensive culture of medicine. Personnel in the department of psychiatry try to be consistent in applying a democratic criterion of health education: a progressive development of individual capacity for enjoying living with insight. This joint medical and Merrill-Palmer School program of observations upon the uniqueness and continuity of human individuality is based upon the conviction that the deeply significant events known as "human growth," "development of insight" and "the emergence of personality in the early years of life" can be well considered and systematically observed and understood only by contact with intentionally progressive teaching personnel. It has been shown that mere exposure and casual observation of infants and children may not be properly effective or automatically enlightening for medical students. To be able to observe children spontaneously, the medical student needs to train himself through guidance, in the focus of his awareness, to live his perceptions with insight, and to realize within himself the significance of what he observes. We have grown to prefer that a student become aware of how little interested he is able to find himself in the capacities of the infant and child, rather than that he graduate without any opportunity of seeing and rescuing from neglect this part of his development.

Since medical students soon will be actively dealing with parents and children, meeting the many questions and anxious inquiries of mothers and teachers, especially about children's changed and changing behavior and emotions, they need opportunities in their education to observe and to understand the kind of living which is healthy for these early crucial years.

With few exceptions it is the hardest but best work for the medical student to attain a consciously directed interest in human development as such. Thus he may be blocked by his own strong convictions and feelings, by his own limitations of self survey, from seeing what a child is doing or from grasping the meaning of that behavior. He may be mildly or strongly "shocked" or disturbed by viewing normal childish behavior, just as he was "shocked" by his initial sight and smell of the prepared human cadaver. He "adjusts" to the dissection table and soon

masters his visceral reactions there but, without recognizing it as a mental attitude of a child, he may go on believing, feeling and, with some disguise, acting in the patterns of his early childhood when he encounters life situations which revive those patterns.

The method of his own educative experience, in conceiving his patient as himself, the interpretation of children's behavior and the explanation of how to accept and manage their activities, including so-called misbehavior, emotional outbursts and conflicts with older children and adults, will help him to become a more constructive counsellor with parents who are increasingly asking their physicians for help on the psychological care of children. Much more could be written about such telling connections as self assertiveness in a child and self reliance and self insight in an adult, reserve in a child and incommunicativeness in an adult, hurt reactions in the child and complaints in the adult, distractibility in a child and evasiveness in an adult, etc.; or trouble in the home and efforts to "work it through" or displace it in the school, etc. Such syntheses as these constitute the training experiences in succeeding medical services. Thus medical students accustom themselves to such lines of inquiry as: what does that look on the two year old face mean when I see it on an adult? How can I translate that look on my adult patient's face into an attitude characteristic of his childhood? etc. The extent to which the student establishes this essential habit of looking forward and backward as resourceful health perspectives is an individual matter depending upon the fidelity of his devotion to increasing his angle of self observation, to enlarging his awareness of his own life history.

It may be affirmed that as the student revises and enlarges his understanding of the natural history of man, undistracted by the presence of the natural history of disease, he also is revising his own private beliefs and feelings, his own image of himself, and developing more capacity for insight into his others. It is not a mere accident if self insight is lacking in our patient; but rather a cardinal fact of disease. As John Dewey stated, the way the subject matter of a living experience develops most effectively and fruitfully is "where there is no conscious distinction of personal attitudes and manner from material dealt with." We health educators are to play our full role in the uninterrupted health care which we are recognizing is essential to human conservation, and it helps to be increasingly aware of, and responsive to the constantly creating personality of all of our patients, young and old. For physicians especially this means translating the knowledge, the insights, the ways of working with human beings which have been initially developed by physicians, psychologists, social workers and lay people into the whole medical school curriculum, infusing all the clinical branches, and hopefully the preclinical subjects, with this overall concern for the developing personality in our patient. Interest in continual growing well, from all of the experiences of life, is the essential health interest. Toward this objective, the joint program of the Wayne medical school and the Merrill-Palmer School is directed, and with each year of operation it is becoming more effective and mutually beneficial.

Medical School Responsibilities for Education in Radioactivity

JOHN A. D. COOPER and AUSTIN M. BRUES

RADIOACTIVE ISOTOPES have assumed an important role in the field of medicine, in the areas of research, diagnosis and therapy. Interest in the field, formerly largely confined to physicists and radiologists, is beginning to encompass a wide circle of the medical profession. During this transitional period, increased attention is being paid to the problems of education of medical students and graduate physicians in at least certain aspects of the application of radioactive isotopes in biology and medicine.

Northwestern University Medical School and the Argonne National Laboratory jointly sponsored a regional conference on radioisotope training programs, to which interested educators from medical schools and other institutions in the midwest were invited. The meeting, held February 7 and 8 in Chicago, also included representatives from the Atomic Energy Commission, Oak Ridge Institute for Nuclear Studies (ORINS), Brookhaven National Laboratory, Veterans Administration and the National Institutes of Health.

The purpose of the conference was to bring together a group concerned with education of medical students and graduate physicians in the field of radioisotopes for exchange of experience and points of view. It was hoped that some clarification would result from the deliberations about: (1) the objectives of such programs, (2) the most desirable pedagogical methods to use, (3) the role of the medical schools and federal agencies in the educational undertaking. The purpose of this communication is to present a summary of the discussions of the conference.

Five classes of individuals were considered from the standpoint of education and training: (1) the undergraduate medical student, (2) the physician who desires to have a general knowledge of the field of radioisotopes, but doesn't wish to become qualified to use these materials himself, (3) the physician who wishes to be certified in the use of two or three isotopes for well established diagnostic or therapeutic procedures, (4) the physician who wishes to become qualified to use radioisotopes for a wide variety of purposes, (5) the radiologist who wishes to use radioisotopes for teletherapy.

The content of the training programs for the various groups will differ qualitatively and quantitatively. For the first two groups, an orientation type of educational program

Dr. Cooper is associate professor of biochemistry and director of the radioisotope unit at Northwestern University Medical School. Dr. Brues is director of the division of biological and medical research at Argonne National Laboratory.

was considered satisfactory and there was little disagreement about the extent and scope of this training. There were only minor areas of disagreement regarding the amount of education and training which might be considered reasonable for individuals in the last two categories. However, there was wide disagreement about the program for the large group of physicians who wish to use radioisotopes in well established procedures for the diagnosis and treatment of disease.

Undergraduate Training

The undergraduate medical student should be given a broad background of information on radioisotopes and their application in biology and medicine. The indoctrination should not be aimed at making the student proficient in the use of these materials, but should provide him with an understanding and appreciation of current trends in the field and act as a framework on which he could subsequently build as far as his interests and ability would permit.

Much of the knowledge could be imparted in courses already established in the preclinical and clinical years. The only requirement is that the various departments have an interest in presenting those aspects of radioisotope training which naturally fall within the subject matter of their courses.

The departments of biochemistry and physiology could concern themselves with presenting the fundamental concepts of nuclear physics, methodology, radiobiology and the use of radioisotopes in research. The student should be made aware of the important roles which radioisotopes play in elucidating the complex biochemistry and physiology of the living organism. The department of pathology could continue the consideration of the effects of ionizing radiation on the living organism. The department of radiology could expand the teaching of radiological physics to include aspects peculiar to radioisotopes. This department would logically appear to be best qualified to give the student an elementary understanding of the hazards involved in the use of isotopes and the methods used to provide safety for those working with these materials. A survey of the use of radioisotopes in teletherapy could be considered along with the therapeutic uses of x-rays and radium.

The diagnostic uses of radioisotopes could be presented in the course in clinical pathology and the therapeutic applications taken up in medicine and surgery where comparisons could be made with other types of therapy.

The pedagogical methods used in the various departments would vary with the type of teaching used in the total teaching program. The same principles of sound teaching would apply to radioisotopes as to any other subject matter. The student should be impressed with the fact that radioisotopes are not esoteric, mysterious agents understood only by a chosen few, but are practical, useful agents which can be employed in at least circumscribed areas by physicians who will expend some time and effort in mastering their peculiarities.

Physician Training

The physician who wants only an orientation in the use of radioisotopes in the field of medicine would be served by a course much like that proposed for medical students. The course would have to be compressed in time to make it feasible for the

physician to attend. The longer interval between his period of premedical training in physics and chemistry would require that the fundamental aspects of the subject matter differ somewhat from that for the undergraduate medical student. The clinical experience of this group would permit some detailed presentation of the practical aspects of the subject. Such courses are already provided, although probably not in sufficient number, in various postgraduate programs sponsored by medical schools and the professional societies.

Delineating the training program for physicians who wish to become qualified to administer radioisotopes to patients was approached with considerable caution by the conference. This caution was engendered by recognition of the potential hazards to patients and the community at large from radioactive materials improperly used. One group expressed the hope that the present requirements established by the Subcommittee on Human Applications of the Atomic Energy Commission would not be relaxed under the pressure of need of physicians in this field. They felt that physicians who desired to use radioisotopes even in established procedures should have considerable training in elementary nuclear physics, instrumentation, radiobiology, radioisotope handling techniques and health protection. A period of clinical apprenticeship with a group actively using isotopes was considered essential so that the physician could develop the clinical judgment required for the use of radioactive isotopes in the practice of medicine. Participants subscribing to this view in general desired that the standards for education and training continue to be elaborated by the Subcommittee on Human Applications and that the Atomic Energy Commission assure itself of conformity with the requirements before granting authorization for use of radioisotopes.

Another group of participants raised objections to the presently established requirements and methods of control. They reasoned that radioactive materials should be treated in much the same fashion as other potentially hazardous drugs. During the period of clinical investigation of the drug to establish indications, contraindications, dosage and treatment regimes, they should be limited to qualified investigators who have adequate training and facilities to obtain and evaluate these data. If the drug is found to be a desirable therapeutic agent and its use becomes a well established procedure, it could be released to a larger group of physicians who would not be required to have the facilities and training of the investigators. The availability of precalibrated isotope preparations for human use should give considerable weight to this plan. The point was also made that in the case of other drugs and, indeed, for the use of radium or x-ray therapy, the control rests with the medical profession both internally and through licensing boards rather than a governmental agency. The question was raised about the possibility of putting control over the use of radioisotopes in well established procedures in the hands of the medical profession. Physicians were considered to have a sense of moral responsibility which would lead them to find out how to properly use new therapeutic methods before applying them.

For the physician who desires to become qualified to use a wide variety of radioactive material and who wishes to do investigative work and

pioneer in new uses of radioisotopes, there was agreement that the requirements for his education and training were much more exacting. This individual, who in general is associated with a medical center, will require little urging to spend adequate time in association with qualified investigators using radioisotopes to acquire the requisite knowledge and skill. It was recognized that the period required would vary with the previous training and experience of the individual, but six months to a year was considered to be a reasonable estimate.

The use of multicurie sources for teletherapy should be restricted to qualified radiologists experienced with the use of other types of supervoltage therapy. These individuals would require only a relatively short period of additional training to supplement their basic knowledge in the area of radiobiology and therapeutic techniques.

The training of technical personnel in the specialized techniques required for radioisotope work was raised as a related problem to that of education and training of the medical profession. The great need for these individuals to assist in research and routine laboratory procedures was recognized. Present opportunities for training with groups engaged in such work was considered inadequate to meet the demand, and suggestions were made that formal training programs be offered by ORINS and, if properly trained instructors are available, by schools for technician training. It was considered proper for medical schools to participate in this type of program.

Representatives from the medical schools and federal agencies agreed that none of the training programs appeared to be governmental responsibilities. Those for the medical profession are the responsibility of the medical schools and the professional societies. It was agreed that ORINS should continue its program if possible until other opportunities were made available. Some expressed the opinion that abbreviated courses could be included in the ORINS series for physicians who desired authorization to use only one or two isotopes.

The conference was considered successful by most of the participants. Many questions were raised which those present had not seriously considered before. The problems which face educators in the field of radioisotopes were brought into clearer focus and their need for their resolution made clear.

Evaluation of the Foreign Trained Physician in Michigan

WAYNE L. WHITAKER

THE COMPLETELY ACCEPTABLE method of evaluating the foreign trained physician for licensing purposes has not been devised. Several procedures have been suggested and some are in use. For over two years the state of Michigan has been following a plan which may have some novel features. It seems to be serving a useful purpose to physicians, hospitals and the people of the state. The operation of this plan may be of interest to others.

In 1950 it became apparent that something needed to be done to utilize effectively and legally the services of foreign trained doctors in Michigan, for the number in the state in training or giving service in several hospitals was becoming significantly large. For some time the laws of Michigan had admitted to the state board examinations a graduate of a medical school other than an approved one in the United States or Canada only if he had repeated the senior year in an approved American medical school. Later the law was liberalized by allowing a master's degree in an approved medical school to be substituted for the repetition of the senior year. The first plan was not satisfactory to the medical schools because an adequately prepared physician did not need the extra work, an inadequate person would not benefit by it and it was often undesirable to add such persons to the regular medical school classes. The second proposal was considered unsatisfactory and was used very seldom because the special work in one field to complete a master's degree is not the sort of training which a foreign physician needs to treat patients here. Furthermore, it became apparent that the schools in Michigan could not, even if they wished, take care in these ways of the increasing number of foreign doctors who wanted to receive a license.

Two factors strengthened the movement to find a better way. The first was insistence on the part of state officials that use must be made of the medical manpower resident in the state but at that time unlicensed. This attitude of course was based upon the general public demand for more doctors. The second factor was the plea for the assimilation and licensing of physicians who had come into this country as displaced persons. Sixty-two of them, resident in Michigan, had come under proper sponsorship and governmental encouragement, with the expectation that they would be able to continue in the profession for which they were pre-

Dr. Whitaker is chairman of the Screening-Examining Board, and associate professor of anatomy and assistant dean of the University of Michigan Medical School.

pared. The Michigan Commission on Displaced Persons effectively presented that point of view.

In order to attack this problem, the governor of the state called a conference of the most interested parties. Present with Governor Williams were John Panchuk, director of the displaced persons commission; the late Orin Madison, president of the Michigan State Board of Examiners in the Basic Sciences; Dr. A. C. Furstenberg, dean of the University of Michigan Medical School; Dr. Gordon H. Scott, dean of Wayne University College of Medicine, and Dr. J. Earl McIntyre, secretary of the Michigan State Board of Registration in Medicine.

During the conference, various methods of meeting the situation were explored. The deans of the two medical schools insisted that they could see no way of giving formal education to the foreign doctors in the state. Certainly it would be improper to license these men on the basis of the written examination only, as it is limited in scope. In addition, the licensing procedures require evidence that the candidate has met certain standards of premedical and medical education. Those standards could not be applied to any significant number of the doctors involved for several reasons. In the first place, their schools were not approved in any formal manner; secondly, the records could not be had from many schools in eastern Europe from which most of the candidates came; and thirdly, the credentials could not be depended upon completely. In the face of this dilemma, Dr. J. Earl McIntyre, secretary of the Michigan State Board of Registration in Medicine, made a suggestion which has formed the basis of our present procedure.

Dr. McIntyre suggested that the two medical schools form a joint Screening-Examining Board to give comprehensive oral examinations. It was his feeling that the medical school teachers should be better fitted than the members of the state board to examine these candidates in matters of formal education. If the candidates passed such examination, they would then be permitted to take the formal state board written examinations. The deans of the two schools accepted the suggestion and offered to cooperate. Subsequently, the State Board of Registration in Medicine approved the plan and modified its rules and regulations to include that proposal.

Screening-Examining Board

The Screening-Examining Board is established as an advisory board to the Michigan State Board of Registration in Medicine. Its 12 members are appointed by the deans of the respective schools. The departments represented on the board are anatomy, bacteriology, biochemistry, physiology, pharmacology, internal medicine, surgery, pediatrics and obstetrics. It gives oral examinations to all candidates referred by the executive officer of the state board, and to those candidates only.

The board usually examines 16 candidates per day, as scheduled by the secretary of the state board. It is not to be expected that every member will question each candidate. Actually, four or five members question each one, with some regard to his background of training or special interest. Candidates who do exceptionally well may be passed readily but may be given some quite difficult and searching questions in order to estimate their real limit of knowl-

edge. The poorer candidate also may be questioned briefly, but only when it is apparent to all concerned that he is hopelessly ill-prepared. It is the borderline individual who is questioned more thoroughly with an attempt to find as accurately as possible the range of his knowledge.

Knowledge of medicine is not the only factor involved, for the oral examination offers a good opportunity to gain some impression of the candidate's use of the English language, his personal appearance and behavior, and his apparent stability under stress.

Compensation of the examiners was recommended by the deans of the two schools and determined by the state board. An honorarium on a daily basis might be as satisfactory, but the practice in Michigan has been to allot to the board $40 for each candidate. The applicant is not assessed any additional fee. The one regular $50 application fee covers both this special examination and the regular written examination of the state board.

Since the board started this program on April 22, 1952, 186 individual oral examinations have been given, including 25 re-examinations. One hundred eleven candidates were approved and 75 rejected. Twenty-one candidates passed the re-examination.

In the preliminary organizational meetings it was assumed that this was a temporary problem to provide an opportunity for the displaced physicians then residing in Michigan to follow their profession. It soon became apparent that other categories of physicians would become significant. With the anticipated increase in the number of immigrants, particularly from Europe, the program has expanded and at the last series of board meetings held in September and October, 61 candidates were processed.

Physicians Examined

The following types of physicians are referred to the board: first, those who came into the United States under the technical designation of displaced persons from Europe seeking citizenship and permanent residence in this country. In the second group are doctors who are in the United States for a short time for postgraduate training purposes. The Michigan state law now permits granting a temporary license for service confined to an approved hospital for a limited number of years. A third group is composed of United States citizens who have had their training in foreign medical schools. A fourth group consists of doctors who have licenses in other states in the United States and who may by reciprocal agreement be excused from the state board examination but must be cleared by the Screening-Examining Board if their degree has been granted by any school other than one approved in this country. A fifth and most important group is that of immigrants coming under quotas from anywhere in the world, seeking permanent residence and professional recognition. This group apparently will be greatly expanded in the very near future due to liberalization of immigration policy. It has been estimated that within the immediate two-year period, the number of entering physicians from European countries will almost equal the total annual production of all American medical schools. There undoubtedly will be problems in the evaluation, training, licensing and assimilation of so many foreign trained doctors into American medicine.

The approach being developed in Michigan is merely one attempt to solve these problems. It has been successful to a considerable degree. Many properly qualified doctors have been able to pursue the profession for which they were trained. Many hospitals are benefited because this arrangement permits an increase in staffs. Some doctors are stimulated to active and fruitful study. Some who are definitely unprepared to practice in Michigan are prevented from doing so, and are shown the need for an alternate occupation.

The participation of the faculty members from two medical schools has been a pleasurable experience. We have enjoyed the association and are of the opinion that neighboring schools may benefit considerably by the exchange of ideas which is bound to occur in a group of men working together repeatedly on a common problem. It is conceivable that a state with more medical schools and more candidates would merely need to multiply the number of examining teams operating, in all cases having each team composed of representatives from various schools and from the several areas of teaching interests and disciplines in the present day comprehensive medical curriculum.

French Lick, Ind.
October 18-20, 1954

AN ANNUAL event during the Association meeting is the banquet, held this year on October 18.

Report of the Sixty-Fifth Annual Meeting

PROFESSIONAL EDUCATION as a university function was the main theme of the 65th Annual Meeting of the Association of American Medical Colleges, held October 18-20, in French Lick, Ind. Four speakers, specialists in their fields, described the points of view of medicine, law, engineering and theology to the more than 350 persons who attended.

First to speak was Dr. Stanley E. Dorst, dean, University of Cincinnati College of Medicine, and retiring AAMC president. Dr. Dorst gave the viewpoint of medicine in his Presidential Address at the opening session on Monday, October 18. In his speech, Dr. Dorst challenged leaders in medical education today to make sure they are producing physicians of broad human understanding, not merely specialized technicians, to meet the changing needs of the future.

Dr. Dorst laid down a series of "flat challenges" to Association members for the future. These included:

• Making sure students acquire knowledge imaginatively and faculties develop physicians, not specialized technicians.

• Determining objectively what kind of physicians will be needed in 1960 and how to modify methods in order to produce them.

• Bringing under control the accelerating program of training specialists so that the experiences of those who will be general physicians will be broadened without disrupting the excellent training in special fields.

The second viewpoint presented was that of theology, which was given by Rev. John Courtney Murray, S.J., professor of theology, Woodstock (Md.) College. Father Murray, speaker at the Annual Banquet on Monday, October 18, discussed "A Theologan Looks at Professional Education."

According to Father Murray, medicine and theology have three common problems which are encountered in both student and professional days. The first of these, he said, is attaining the common goal of communicating knowledge as perfectly as possible so that students are taught under maximum educational standards.

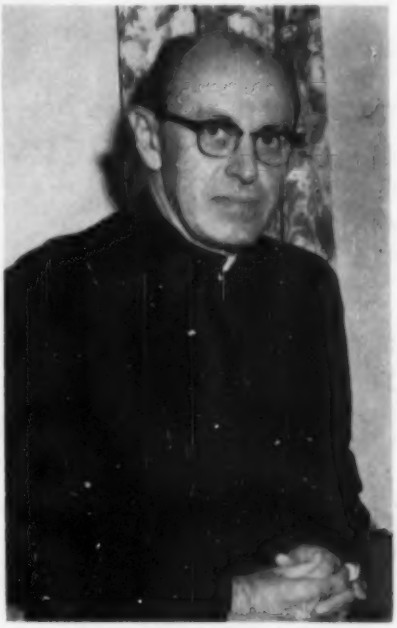
The second common problem was described by Father Murray as that of "the many and the few." Medical schools, like theological seminaries, he said, turn out many "general practitioners," while at the same time remaining aware that an even higher duty is owed to the few. He believes that the solution to this problem lies within the personalities of the men who teach.

The third area of common interest, according to Father Murray, is in the avoidance of "professional deformation," wherein education in a limited field tends to limit the man, exposing him to the danger of being deformed as a whole man though thoroughly competent within his profession. He raised the question of how the young men can remain integrally men at the same time they become doctors. And, Father Murray, said, this must be accomplished or the individual may not become a good doctor.

The viewpoints of engineering and of law were presented at the afternoon meeting on Tuesday, October 19, by Dr. Henry T. Heald, chancellor of New York University, and Dr. Shelden D. Elliott, president of the Association of American Law Schools and professor at New York University School of Law.

Speaking for engineering, Dr. Heald began by comparing the loosely knit engineering profession with the "single organization to which all members belong" in medicine.

In his address, Dr. Heald inferred that the medical profession might well consider the advantages of not utilizing a single agency in its organ-



THE points of view of theology, law and engineering toward professional education as a university function were discussed, respectively, by (above) Rev. Thomas Courtney Murray, (left, below) Dr. Shelden D. Elliott and Dr. Henry T. Heald.

A SPECIAL meeting of Teaching Institute participants and cancer program coordinators in medical schools was held on Saturday, October 16.

EACH MORNING of the Institute, all participants met in general session. In the picture above, Dr. Charles A. Evans, chairman of the subcommittee on problems of the student, is addressing the group.

ized activities. In recognizing the pronounced advances made in both engineering and medicine, he qualified his comments by saying that "whereas engineering curricula have been relatively easy to alter, as normal academic time-lags go, medical curricula have remained relatively inflexible. I would raise the question as to whether this disinclination to expand or contract the curricula to fit the pattern of new knowledge is in the best interests of the student, the profession and the health needs of the people."

Speaking also as chancellor of a university, Dr. Heald stressed the need for a free interplay of ideas among the various schools of the university. He emphasized the disadvantages of isolation of the medical school from the rest of the university —either geographically or in teaching —and urged that every effort be made to bring them closer together.

Dr. Elliott, who spoke immediately after Dr. Heald, reiterated the chancellor's call for cooperation between professional educators in all fields. Professor Elliott said that within the law school "there is increasing concern with, and attention to, the subject of the legal profession itself, its ethics and its responsibilities. There is also a broadening of horizons to in-

clude the important concepts of leadership in community, national and world affairs."

Pre-Conference Meetings

While the 65th Annual Meeting did not open officially until October 18, a number of pre-conference sessions were held October 16-17. The first of these was a meeting of representatives of government agencies and members of the AAMC Executive Council, held Saturday, October 16.

During the session, Dr. Stanley Olson, chairman of the AAMC Medical Education for National Defense Committee, announced that the MEND program, carried on in five pilot schools for the past two years, will be expanded. The program, intended to prepare medical students for military service, is financed by the U.S. Department of Defense. It was developed originally through cooperative efforts of the AAMC committee and the department, and continuation and expansion of the program has been consistently advocated by the Association. In the new program, 10 additional schools will participate. Dr. Olson, dean of Baylor University College of Medicine, will serve as national coordinator on a part-time basis until a permanent appointment is made.

IN HIS Presidential Address, Dr. Stanley E. Dorst discussed the viewpoint of medicine toward professional education as a university function.

On Sunday morning, October 17, a special open meeting on postgraduate and continuation medical education

INTRODUCTORY remarks about the Teaching Institute were made at the Monday morning session by Dr. Douglas A. Sprunt, Institute chairman. Seated on the platform during his speech were (left) Dr. Dean F. Smiley; Dr. Stanley E. Dorst; Dr. Robert A. Moore, Institute co-chairman, and Dr. George Packer Berry, chairman of the Committee on Teaching Institutes and Special Studies.

NEW DEANS present at the meeting included (seated, left) Dr. Granville A. Bennett, Illinois; Dr. John B. Lagen (acting dean), California (San Francisco); Dr. Howard W. Potter, State University of New York (Brooklyn); (standing, left) Dr. Marcus D. Kogel, Albert Einstein; Dr. E. Hugh Luckey, Cornell, and Dr. Chester Bryant Stewart, Dalhousie.

was held. It was sponsored by the Committee on Continuation Medical Education, and Dr. James E. McCormack, committee chairman, conducted the session. In the afternoon, Dr. Kendall B. Corbin, chairman, and the Committee on Graduate Medical Education, conducted a symposium on graduate medical education.

Conference Reports

The morning meeting on Tuesday, October 19, was devoted to reports of three teaching conferences. First on the program was Dr. Theodore Lidz, professor of psychiatry, Yale University School of Medicine, who described results of the 1950 and 1951 Ithaca conferences on the teaching of psychiatry. Dr. John P. Hubbard, professor of preventive medicine and public health, University of Pennsylvania School of Medicine, and Dr. Duncan W. Clark, professor of preventive medicine, State University of New York, reviewed the results of the 1952 Colorado Springs Conference on Preventive Medicine in Medical Schools. Final speaker at the session was Dr. Julius H. Comroe, professor of physiology and pharmacology, University of Pennsylvania Graduate School of Medicine, who summarized results of the 1953 Teaching Institute on Physiology, Biochemistry and Pharmacology, of which he was chairman.

TRIBUTE for his years of service was paid to Dr. Joseph C. Hinsey (left), who retired from the Executive Council this year, by Dr. Ward Darley.

Borden Award

A feature of the Annual Banquet on Monday evening was presentation of the 1954 Borden Award in the Medical Sciences to Dr. Karl F. Meyer, director of the George Williams Hooper Foundation for Medical Research, and professor of experimental pathology, University of California School of Medicine. Dr. Meyer was honored for

his many contributions to the knowledge of plague, the psittacosis group of viruses and brucellosis.

Dr. Meyer has been associated with the University of California since 1914 and with the foundation since 1915. He joined the university as professor of bacteriology and protozoology, and has served as associate professor of tropical medicine, professor of bacteriology and director of public health curricula.

Dr. Meyer was unable to attend the Annual Meeting, and the Borden Award was accepted for him by Dr. Francis Scott Smyth, head of the department of pediatrics and former dean, University of California School of Medicine. Presentation of the Award was made by Dr. Ashley Weech, chairman of the Committee on the Borden Award, and John H. McCain, secretary of the Borden Company Foundation.

Tribute

During the Annual Banquet, Dr. Ward Darley, 1953 AAMC president and president of the University of Colorado, paid tribute on behalf of the AAMC to Dr. Joseph C. Hinsey, director of the New York Hospital-

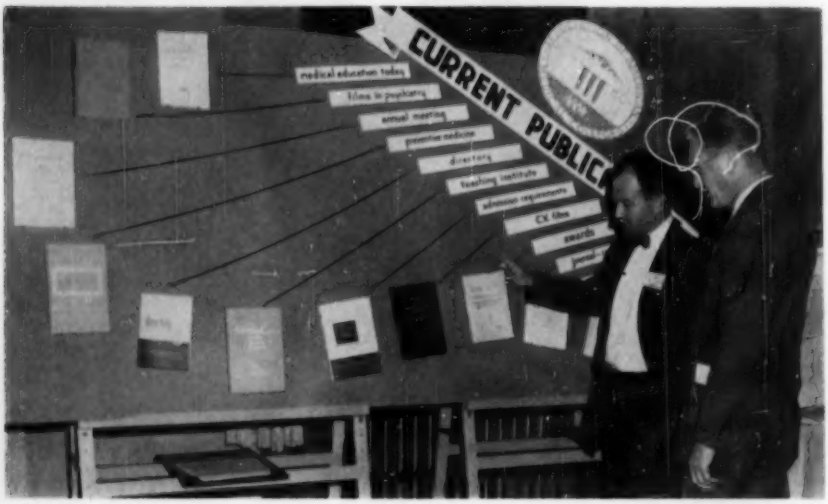
THREE years of AAMC presidents may be seen in the picture on the right. Shown talking together are (left) Dr. Vernon W. Lippard, president; Dr. Stanley E. Dorst, immediate past president, and Dr. Robert A. Moore, president-elect. In the picture below are members of the Nominating Committee, which met at noon, October 18. Present at the session were (left) Dr. George Packer Berry, committee chairman; Dr. Richard H. Young; Dr. Walter A. Bloedorn; Dr. Marion Fay and Dr. R. Hugh Wood.

LAST MEETING of the 1953-54 Executive Council was held Saturday, October 16. In the picture are (seated, left) Dr. Dean F. Smiley, Dr. Joseph C. Hinsey, Dr. Ward Darley, Dr. Stanley E. Dorst, Dr. John B. Youmans, Dr. Vernon W. Lippard, (standing, left) Dr. Robert A. Moore, Dr. Walter R. Berryhill, Dr. Stockton Kimball and John M. Stalnaker. Other Council members were Dr. William S. Middleton, Dr. George N. Aagaard and Dr. John Z. Bowers.

Cornell Medical Center, who retired this year as chairman of the Executive Council. Dr. Hinsey came to the Council in 1945 as AAMC vice president. He served as Association president in 1949, and was Council chairman from 1950 until last month.

New Officers

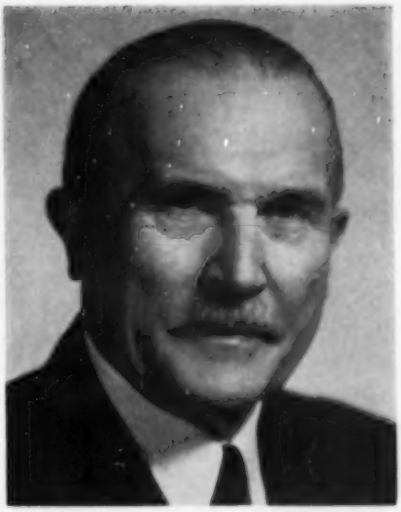
Dr. Robert A. Moore, vice chancellor of the Schools of the Health Professions, University of Pittsburgh, was unanimously named Association



AN EXHIBIT of Association publications was on display at the meeting. Seen looking it over are (left) Dr. William A. Harris, State University of New York, and Dr. Wayne L. Whitaker, Michigan.

president-elect. He will take office in October 1955, succeeding Dr. Vernon W. Lippard.

Other new officers and Council members, elected unanimously on recommendation of the Nominating Committee, are: vice president, Dr. John McK. Mitchell, dean, University of Pennsylvania School of Medicine; treasurer (re-elected), Dr. John B. Youmans, dean, Vanderbilt University School of Medicine; Executive Council members (terms expiring in 1957), Dr. Lowell T. Coggeshall, dean, Division of Biological Sciences, University of Chicago; Dr. Thomas H. Hunter, dean, University of Virginia School of Medicine.



WINNER of the 1954 Borden Award was Dr. Karl F. Meyer (picture above). In his absence, Dr. Francis Scott Smyth (far right) received the Award from Dr. Ashley Weech (left) and John H. McCain of the Borden Company Foundation.

The new Executive Council, in its first meeting October 19, named Dr. Lippard as chairman. Appointed by the Council were Dr. Dean F. Smiley and John M. Stalnaker.

Business Meeting

More than 1,350 persons were approved as Individual Members of the Association during the Annual Business meeting, October 20. This group represents the first persons to be accepted under Individual Membership, established a year ago. Applications are voted on by the official representatives of the Association's 81 institutional member schools in the United States.

During the business meeting, member school representatives approved a number of Executive Council recommendations. These included:

—A vote of confidence and support of the efforts of the MEND Committee

RESULTS OF four teaching conferences were described by speakers on Tuesday morning. Appearing on the program were (left) Dr. Julius H. Comroe; Dr. Duncan W. Clark; Dr. Stanley Dorst, meeting chairman; Dr. John P. Hubbard, and Dr. Theodore Lidz.

to give permanence to and provide expansion of the MEND program. Dr. Stanley Olson, committee chairman, was given a special vote of appreciation for his leadership in the program.

—Instructions to Dr. Lippard to write a letter to President Dwight Eisenhower, pointing out the harmful effects on medical education of the present practice of refusing deferment for medical teachers who transfer from one essential position to another.

—Expression of the opinion that the medical profession has a real responsibility to participate in the ac-

PRESENT AT the first meeting of the new Executive Council on October 19 were (seated, left) Dr. Thomas H. Hunter; Melba Allyn, AAMC staff; Dr. Dean F. Smiley, secretary; Dr. Vernon W. Lippard, president and chairman; Dr. John McK. Mitchell, vice president; Dr. Stanley E. Dorst, immediate past president; Dr. John B. Youmans, treasurer; (standing, left) Dr. William N. Hubbard Jr., associate secretary; Dr. Robert A. Moore, president-elect; Dr. John Z. Bowers; Dr. Stockton Kimball, and John M. Stalnaker, director of studies. Council members not photographed are Dr. George N. Aagaard, Dr. Walter R. Berryhill and Dr. Lowell T. Coggeshall.

EIGHT round table discussion groups met simultaneously on Monday afternoon to talk over the Teaching Institute. Persons attending Round Table H may be seen in the picture below.

ONE of the Association standing committees holding open hearings on Tuesday afternoon was International Relations in Medical Education, led by Dr. Francis Scott Smyth, chairman (see picture at top). One of the preconference meetings was a session on Saturday afternoon (see picture below) of representative of government agencies interested in medical education and members of the Association Executive Council.

crediting of nonmedical but professional personnel working in the medical field.

—Expression of serious concern over the fact that in many areas of national planning involving medical education, the Association found no ready channel through which to make known the impact of this planning on medical education. Since many of these plans represent long-term government policy, as well as plans for possible national emergency, it is most important that these channels of communication be carefully kept open.

—Approval of general plans for construction of a central office headquarters in Evanston, Ill., providing funds can be procured from outside sources for the purchase of land and erection of a suitable building.

In addition to the report of the Executive Council, which was presented by Dr. Hinsey, annual reports of the 13 AAMC standing committees, the secretary, the treasurer, the director of studies and the director of the Medical Audio-Visual Institute were presented at the business meeting. All of these were approved.

The time and place of the 66th Annual Meeting were approved as follows: October 24-26, 1955, at the New Ocean House, Swampscott, Mass.

The full *Minutes* of the Proceedings of the 65th Annual Meeting will be published as part of the Journal of MEDICAL EDUCATION for December.

Teaching Institute

On October 17-21, immediately preceding the Annual Meeting, 126 invited participants attended the Association-sponsored Teaching Institute on Pathology, Microbiology, Immunology and Genetics. Dr. Douglas H. Sprunt, professor of pathology, University of Tennessee School of Medicine, was chairman, and Dr. Robert A. Moore was co-chairman.

At the first session of the AAMC meeting, Monday morning, October 18, six 15-minute reports on the Teaching Institute were presented. Speakers and their subjects were:

Dr. G. Lyman Duff, dean and professor of pathology, McGill University Faculty of Medicine—How to Deal with the Important Needs for Service; Dr. William B. Wartman, professor of pathology, Northwestern University Medical School—Should the Examination Serve as a Learning Exercise; Dr. Colin M. MacLeod, professor of microbiology, New York University College of Medicine—The Scope of Microbiology; Dr. C. Nash Herndon, associate professor of medical genetics, Bowman Gray School of Medicine—Genetics in Medical Education; Dr. Dale R. Coman, professor of experimental pathology, University of Pennsylvania School of Medicine—Project Teaching; Dr. I. Davidsohn, professor of pathology, Chicago Medical School—Integration of Preclinical and Clinical Studies.

Dr. Sprunt spoke briefly at this session, as did Dr. George Packer Berry, dean of Harvard Medical school and chairman of the AAMC Committee on Teaching Institutes and Special Studies. Dr. Moore served as meeting chairman.

On Monday afternoon, eight small round-table groups met simultaneously for discussions based on the four major topics of the Institute. Leaders of each group were members of the general Institute committee, chairmen of four subcommittees, leaders of morning sessions and other Institute participants.

The 1955 Institute, on anatomy, histology, embryology and anthropology will be held October 17-21, at the New Ocean House, Swampscott, Mass. Chairman of the Institute is Dr. William U. Gardner, professor of anatomy, Yale University School of Medicine. Attendance will be by invitation only.

The Scientists Must Speak Up

THE PROBLEM OF THE EFFECTS of H-bomb explosions is terribly disturbing, but I do not think that a conference of scientists is what is needed to deal with it. There are too many conferences in the world today and too many decisions taken by them.

What the world should do is to listen to the warnings of individual scientists who understand this terrible problem. That is what would impress people and give them understanding and make them realize the danger in which we find ourselves.

Just look at the influence Einstein has, because of the anguish he shows in face of the atomic bomb.

It must be the scientists, who comprehend thoroughly all the issues and the dangers involved, who speak to the world, as many as possible of them, all telling humanity the truth in speeches and articles.

If they all raised their voices, each one feeling himself impelled to tell the terrible truth, they would be listened to, for then humanity would understand that the issues were grave.

If you and Alexander Hadlow [who has pleaded for a United Nations conference of scientists on the H-bomb] can manage to persuade them to put before mankind the thoughts by which they themselves are obsessed, then there will be some hope of stopping these horrible explosions and of bringing pressure to bear on the men who govern.

But the scientists must speak up. Only they have the authority to state that we can no longer take on ourselves the responsibility for these experiments, only they can say it.

There you have my opinion. I give it to you with anguish in my heart, anguish which holds me from day to day.

With my best wishes and in the hope that those who must advise us will make themselves heard.—ALBERT SCHWEITZER.

This letter appeared originally in the London Daily Herald *and was reprinted in* Science *with Dr. Schweitzer's permission. It also was reproduced in the* Saturday Review *for 17 July at the suggestion of Eugene Exman, who is Dr. Schweitzer's American editor. Dr. Schweitzer currently is dividing his time between his home in Gunsbach, Alsace, France, and his hospital in Lambaréné, French Equatorial Africa. (Reprinted in* MEDICAL EDUCATION *from the October issue of* The Scientific Monthly.)

Editorials and Comments

Medical Education in the U.S.S.R.

THE EDUCATIONAL NUMBER of the *British Medical Journal* (August 28, 1954) includes among a number of other noteworthy articles a two-page description of medical education in the Soviet Union.*

According to this report there are now in the U.S.S.R. 63 medical, four dental and eight pharmaceutical institutes. These institutes correspond with our colleges. They were, however, altogether separated from their parent universities in 1930 and have been reorganized as institutes under the Ministry of Health. The purpose of this reform was to make "it possible to adapt teaching methods to the needs of medical practice and unite medical schools with research institutes which had always been part of the health services of the country."

Entrance to the medical, dental and pharmaceutical institutes is by a competitive examination in physics, chemistry, philosophy and Russian language and literature. The medical course is six years long, the dental and pharmaceutical courses five years long. About half of the 26,000 students entering the medical and pharmaceutical institutes each year are women and more than 90 per cent of the students in the medical institutes receive a state stipend.

After completion of the six-year medical course and passing of the state examination, the newly-qualified doctors are assigned work which they have to do for three years under the supervision of the Ministry of Health.

For those students who wish opportunity to prepare for research and teaching (after the assigned three years under the Ministry of Health), there are three chief roads open: "for hospital medical officers—three years' work in the clinics of a medical institute;" for the training of assistant professors and clinical directors, a three-year course at the postgraduate institute; "in order to train professors from among the more able assistants and lecturers an institute for doctorates has been set up, with a three- to three-year course."

The state system of providing advanced training in a specialty includes three stages. The first stage provides that the general practitioner devote four to six months to specialized clinics and hospitals. The second stage involves attendance for three to nine months at one of the "11 institutes for raising medical qualifications." (Admission is open to any physician

*S. V. Vurashov, lecturer in psychiatry, Moscow Postgraduate Medical Institute; Deputy Minister of Health of the U.S.S.R.: "Medical Education in the Soviet Union," *British Medical Journal*, August 28, 1954.

who has spent three years in rural practice or five years in urban practice. He receives while in this training his nominal salary plus a supplementary state stipend.) The third stage in the training of specialists is attendance in the same three-year course for hospital officers mentioned in connection with the training of teachers.

Dr. Vurashov points out that "before the October revolution of 1917, there were in Russia 13 medical faculties, and five medical schools for women, from which about 1,500 doctors qualified annually after a five-year period of medical education. In 1917 the total number of doctors in Russia was about 20,000, and the overwhelming majority were in the towns and central regions of the country. The rural population was served by the 'Zemstvo' medical organization on a regional basis, and there was only one doctor to many thousands of people."

After the revolution, the author states, "The doors of the medical faculties of the universities were flung open to working-class youths, and by 1922 the number of faculties had increased to 34." He further states, "We consider that the greatest achievement in medical education after the revolution has been the setting up of medical institutes in those outlying territories which were national minorities in the days of Tsarist Russia and are now national republics with equal rights . . . Some republics which previously had no medical institutes—for example, Azerbaizan, Georgia and Armenia—have now fully supplied themselves with doctors from the local population, and at present have more doctors per 1,000 population than any other republic of the Soviet Union, not excluding the Russian Federation."

This brief report presents evidence of great progress in Russian medical education since 1917. One would certainly question the ultimate wisdom of separating the medical schools from their parent universities. Under the system as outlined above, providing rural areas with doctors and assuring that physicians do at least three years of general practice before specializing provide no problems. It is just so ordered.—D.F.S.

Psychiatry in the Undergraduate College

THE VALUE OF the psychiatrist as an interpreter and supporter in faculty-student relationships of medical schools is now well recognized. It is timely that other colleges are becoming increasingly aware of the contributions that a psychiatrist can make in this important area.

Recently the Mills College of Education of New York City reported on a five-year experience with the utilization of a psychiatrist as a faculty member. The adventure was characterized as "a profound success," for the psychiatrist made an important contribution as a member of the guidance program for both student and faculty alike.

At Mills, the psychiatrist is a regular faculty member who conducts monthly seminars with the faculty. Topics of discussion have included the role of the parent in the development of the student, appropriate psychological criteria for inclusion in the admissions policy and the col-

lege's responsibility for the physical and emotional health of its students.

The availability of the psychiatrist for conferences in specific case problems of student-teacher relationships is another valuable addition to the college program. By relating behavior patterns to the basic problems of students, the psychiatrist serves as a useful bridge for communications. He carries a third dimension to student problems.

This is another example of the potential value in increasing the geographical and intellectual proximity of mother universities and their medical schools.—J.Z.B.

One Day For Clinics

IN THE SPECIAL DEPARTMENTS the clinic instruction is usually limited to one day in the week. It really seems as though the old idea that practitioners need not know much about diseases of the skin, nose, throat, eye and ear is still haunting our college halls; for it requires no arguments to prove that very little can be accomplished under this system. One hour per week! How many cases can be properly demonstrated and explained in one hour? How can the student familiarize himself by his own observations with the progress of a malady if he can see a case but once a week? And what good does it do to have an abundance of clinic material, if the cases cannot be shown for lack of time and cannot be presented in their fresh and unadulterated state? Suppose the eye clinic is on Monday, and on Tuesday or Wednesday a typical case of acute iritis or glaucoma is received. Now we cannot let the case go without treatment until the next clinic day and by this time the treatment will have changed the conditions so effectually that from the appearance the case then presents, the student can never get an idea of the original state of the disease.—*From an address by Dr. F. C. Hotz, professor of ophthalmology and otology at Rush Medical College, read before the meeting of the Association of American Medical Colleges, June 4, 1900.*

NEWS DIGEST

Binkert Appointed

The appointment of Alvin J. Binkert as vice president and general manager of the Presbyterian Hospital at the Columbia-Presbyterian Medical Center has been announced. Mr. Binkert has been the hospital's assistant vice president for administration since 1948. He succeeds John S. Parke, who died August 13.

National Board Examinations

The National Board of Medical Examiners has announced its 1955 schedule for Parts I and II of its examinations as follows: February 1, 2; April 19, 20 (Part II only); June 21, 22; and September 6, 7 (Part I only).

Candidates may file applications at any time, but the national board must receive them at least six weeks before the date of the examination they wish to take. New candidates should apply by formal registration; registered candidates should notify the board by letter and forward their fees.

The fees are: registration, $5; Part I, $20; divided examination, Part I, $25; Part II, $20 and re-examination (per subject), $5.

Experimental Nurse Program

The school of nursing of the University of Pennsylvania has inaugurated a two-year experimental program in nursing education, leading to a newly-approved degree of associate in applied science, and eligibility to take the state licensure examinations.

The new two-year program for high school graduates shortens by one full year the time required to complete a nursing education in an average American hospital. The curriculum will offer fewer courses than the traditional three-year course, with broader grouping of subject matter.

Aviation Medicine School

Approval has been granted for the construction of new quarters at the Brooks Air Force Base, San Antonio, Texas, for the U. S. Air Force School of Aviation Medicine.

Plans for the new facilities at San Antonio include one large building for administration and research, and several smaller buildings for teaching and related activities.

Col. Henry M. Sweeney has been appointed director of research at the school, which is at present located at Randolph Air Force Base in San Antonio.

Prentiss Award

The Cleveland Health Museum's Elisabeth Severance Prentiss National Award in Health Education went this year to Dr. Ira Vaughan Hiscock, chairman of public health at Yale University School of Medicine. Dr. Hiscock has been active in health programs on local, state and national levels since 1914. He has been on the Yale faculty for 34 years.

World Heart Congress

More than 3,100 registrants from 50 nations attended the Second World Congress of Cardiology, which was combined with the 27th Scientific Sessions of the American Heart Association in Washington, D. C., September 12-17.

Dr. Paul D. White, of Boston, who served as president of the congress, was elected president of the Inter-

national Society of Cardiology, which sponsors the congresses.

The Third Congress of Cardiology will be held in Brussels, Belgium, in 1958. The Inter-European Congress of Cardiology will take place in Stockholm, Sweden, in 1956.

Upjohn Grants

Research grants of $15,000 to the University of Illinois and $3,000 to the University of California have been announced by the Upjohn Co. A grant of $9,000 was awarded to the department of chemistry at Illinois to support work on the chemistry and preparation of antibiotics, under the direction of Dr. Herbert E. Carter.

Clinical Fellowships

The National Foundation for Infantile Paralysis has announced the availability of a limited number of clinical fellowships in physical medicine and rehabilitation. They are offered to physicians who wish to become eligible for certification by the American Board of Physical Medicine and Rehabilitation.

Each recipient must agree to practice as a specialist in physical medicine and rehabilitation in the United States or its territories for at least two years following the completion of his fellowship.

For further information and application blanks, write to the National Foundation for Infantile Paralysis, Division of Professional Education, 120 Broadway, New York 5, N. Y.

Seton Hall

An illustrated pamphlet has been published by Seton Hall University, describing plans for the new medical and dental college. The college, housed in a 17-story building at the Jersey City Medical Center, was dedicated in August, and will be opened to students in September 1955. It will be New Jersey's first medical and dental college.

Tropical Medicine and Hygiene

The third annual meeting of the American Society of Tropical Medicine and Hygiene was held November 3-6 in the Hotel Peabody, Memphis, Tenn.

The convention was a joint one with the American Academy of Tropical Medicine and the American Society of Parasitologists. The official hosts for the meeting were the University of Tennessee School of Biological Sciences and the College of Medicine, the Memphis-Shelby County Medical Society and the Memphis Academy of Internal Medicine.

College Briefs

Bowman Gray

Dr. HAROLD D. GREEN, professor and director of the department of physiology and pharmacology, has been asked to accept the presidency of the American Section of the International Congress of Angiology in 1955. The congress will be held at Freiburg, Switzerland, in August 1955.

Dr. WESTON MAYNARD KELSEY has been promoted to the position of professor and director of the department of pediatrics. He succeeds Dr. ROBERT B. LAWSON, who has joined the faculty of the University of Miami. Dr. Kelsey joined the school of medicine faculty in 1946.

Cincinnati

The representative of the National Institute for Mental Health on an intercouncil committee of the Public Health Service will be Dr. MAURICE LEVIN, professor of psychiatry at the college of medicine. Dr. Levin is a

member of the national advisory council to the institute.

The new committee, composed of representatives from the several institutes of the Public Health Service, will coordinate its research activities in all medical fields.

Creighton

The National Foundation for Infantile Paralysis has awarded a five-year grant of $114,436 to the school of medicine for developing the concepts of rehabilitation throughout the medical curriculum. The first year grant will be $26,168.

The administration of the appropriation is under the direction of Dr. HAROLD N. NEU, director of the department of medicine. He will be assisted by Dr. HAROLD A. LADWIG, instructor in neurology, and Dr. FRED J. FRICKE, instructor in physical medicine and rehabilitation at the Veterans Administration hospital in Omaha.

Duke

Dr. BARNES WOODHALL, professor of neurosurgery, has been named to the Army Surgeon General's advisory editorial board on the surgical history of World War II. Nineteen physicians throughout the country will serve on the board, which will determine the scope of the proposed work, evaluate articles and recommend authorities to write articles on topics which have not as yet been covered.

Dr. LELAND STODDARD, formerly a pathologist at the medical school, has been named chairman of the University of Georgia Medical School's department of pathology. Dr. Stoddard was director of surgical pathology at Duke from 1950-1952.

George Washington

A cancer research grant of $35,000 has been awarded to the school of medicine by the American Cancer Society. The grant was given to Dr. CLOYD H. MARVIN, president of the university, and will be used by the university cancer clinic, which is directed by Dr. CALVIN T. KLOPP.

Harvard

Graduate training in aviation medicine is being offered for the first time this year by the Harvard School of Public Health. The program, directed by Dr. ROSS A. MCFARLAND, associate professor of industrial hygiene, will meet the requirements of the American Board of Preventive Medicine of one year of graduate training in the areas of basic sciences which are related to aviation medicine.

The 40-hour basic course includes instruction in biostatistics, epidemiology, psychological problems, environmental physiology, conservation of health in tropical countries, industrial hygiene and industrial safety.

Educational requirements of the American Board of Preventive Medicine for qualification in aviation medicine include completion after internship of two academic years of graduate study in preventive medicine and aviation medicine; two years of residency in aviation medicine practice, and two years of internship in addition to regular and frequent flights.

Louisiana

Dr. ROBERT A. MATTHEWS, head of the department of neuropsychiatry at the school of medicine, will participate in a 30-day tour of the Far East as a consultant to the Surgeon General of the Army.

The tour will include military installations in Japan and Korea primarily. Dr. Matthews will inspect the medical facilities, make staff evaluations and study the efficiency of the psychiatric service available at the installations. He also will give a series of lectures in neuropsychiatry, conduct teaching seminars and serve as a consultant in problem cases.

Loyola (Stritch)

The school of medicine has completed plans for the development of a $10 million medical center to be located in Skokie, a suburb of Chi-

THE building shown above was the site of the original Atlanta Medical College, founded in 1854 and the forerunner of Emory University Medical School. This building was used as an army hospital during the Civil War, and barely escaped destruction at the hands of Sherman's men. Below is the Woodruff Memorial Building, which houses the administrative offices of the present medical school, which celebrated its centennial last month.

cago. The new center will house the school of medicine and a $6 million hospital run by the Sisters of Mercy. A contract has been signed for a 50-acre tract of land. This development will mark the university's third major expansion since the war, totaling about $16 million.

Emory

The march of medicine over the past 100 years was the theme of a two-day program at the university on October 4 and 5, in celebration of the centennial of the Emory medical school.

The main speeches of the centennial observation were given by Dr. ALAN GREGG, vice president of the Rockefeller Foundation; Dr. ALFRED BLALOCK, professor of surgery at Johns Hopkins University School of Medicine; Dr. JOHN F. FULTON, professor of physiology and of the history of medicine at Yale University School of Medicine; Dr. CYRUS C. STURGIS, professor of medicine at the University of Michigan Medical School; Dr. EVARTS A. GRAHAM, emeritus professor of surgery at Washington University School of Medicine, and Dr. STANHOPE BAYNE-JONES, director of research of the Army medical department.

The school was first opened as the Atlanta Medical College in 1854. In those early days tuition for the four

months' session was $106, and on two occasions a horse was taken as part payment from an ambitious student.

During the Civil War the school suspended operations, since both students and faculty served in the Confederate Army. The building was used as an army hospital until classes were resumed in November 1865.

In 1898 the Atlanta Medical College and the Southern Medical College consolidated into the Atlanta College of Physicians and Surgeons. In 1905 an Atlanta School of Medicine was established, which joined the Atlanta College of Physicians and Surgeons in 1913 as the Atlanta Medical College. Two years later the college united with Emory University, moving to the Druid Hills campus in 1917. The Wesley Memorial Hospital, now Emory University Hospital, opened on the campus in 1922.

The school of medicine has also announced the establishment of the Frances Winship Walters chair of pediatrics, which will provide for the first fulltime professor in the field of health care for children in the history of the school.

McGill

Dr. H. R. GRIFFITH has been appointed professor and chairman of the department of anesthesia. Dr. THEODORE BROWN RASMUSSEN has been named professor of neurology and neurosurgery.

Dr. R. L. DENTON, Dr. A. K. GEDDES and Dr. JESSIE B. SCRIVER have been promoted to associate professors of pediatrics. Dr. BENJAMIN ALEXANDER and Dr. DAVID R. MURPHY have been advanced to associate professors of ophthalmology and surgery, respectively.

Medical Evangelists

An expedition to the Marshall Islands, directed by Dr. BRUCE HALSTEAD, head of the department of biotoxicology in the school of tropical and preventive medicine, left September 19. Dr. Halstead will collect specimens of poisonous fish which will be frozen and returned to the school. The 10-man expedition is being sponsored by the Public Health Service and the Atomic Energy Commission.

Dr. HAROLD SHRYOCK has resigned as dean of the school of medicine in order to return to fulltime teaching in the department of anatomy. He has served as dean since 1944. A successor will be named in the near future.

Meharry

Dr. MATTHEW WALKER, chairman of the department of surgery and assistant dean of the school of medicine, has been inaugurated as president of the National Medical Association.

Dr. DAVID V. BRADLEY has been appointed associate professor of surgery (urology).

Miami

A $1 million outpatient clinic building is now under construction on the Jackson Memorial Hospital grounds. When completed it will house the clinical departments and extend the teaching facilities of the medical school.

Dr. ROBERT B. LAWSON, formerly chairman of the department of pediatrics at the Bowman Gray School of Medicine, has been appointed professor and chairman of the department of pediatrics. Dr. JOHN J. FARRELL, formerly professor of surgery at Albany Medical College, has been named professor and chairman of the department of surgery. Dr. FRANZ H. STEWART and Dr. JOHN D. MILTON will head the departments of medicine and of obstetrics and gynecology respectively.

Minnesota

Dedication of the Mayo Memorial, the new addition to the university medical center, was held on October 21 and 22. The 14-story structure, honoring Dr. WILLIAM J. and Dr. CHARLES H. MAYO, will be used for "advancing medical education and research."

Constructed at a cost of $12 mil-

lion, the building will house the departments of medicine, surgery, pediatrics, psychiatry, physical medicine and rehabilitation, bacteriology and immunology, radiology, continuation medical education and the school of public health.

State U. of N. Y., Brooklyn

Dr. JEAN REDMAN OLIVER and Dr. ARNOLD EGGERTH have been named professors emeriti of pathology and microbiology, respectively. Completing 25 and 35 years of service, Dr. Oliver and Dr. Eggerth were retired from the faculty on September 1.

North Dakota

Dr. ROBERT G. FISCHER, associate professor of bacteriology, has been awarded $10,000 from the National Foundation for Infantile Paralysis to assist in a nationwide study of the results of the current vaccination drive.

Ohio

The National Institutes of Health have awarded eight grants totaling $44,744 to the health center. Three of the grants were made by the National Cancer Institute to Dr. WALTER J. FRAJOLA, Dr. MELVIN S. NEWMAN and Dr. HANS G. SCHLUMBERGER.

Dr. ERIC OGDEN and Dr. JAMES F. SCHIEVE will be in charge of two grants from the National Heart Institute and Dr. EARL L. GREEN and Dr. ARTHUR M. CULLER have received grants from the National Institute of Arthritis and Metabolic Diseases and the National Institute of Neurological Diseases and Blindness, respectively.

The college of medicine also received an award totaling $34,398 from the National Fund for Medical Education.

Oklahoma

Maj. LOUIS J. WEST, M.D., has been appointed professor and head of the department of psychiatry and neurology at the school of medicine, on military leave. He will become the first fulltime head of the department of psychiatry at the school.

Major West, who is now on active duty with the Air Force, received permission to spend a part of his time in Oklahoma City to organize the psychiatric teaching and research program at the medical center. He is at present chief of the psychiatry section of the 370th USAF hospital at Lackland Air Force Base, San Antonio, Texas.

Dr. APPARICIO SILVA DE ASSIS will be on the medical school campus for three months this autumn, conducting cancer research under a grant from the National Research Council of Brazil. Dr. de Assis is assistant professor of urology at the University of Minas Geraes in Belo Hori Zonte, Brazil. He will work with Dr. CLARENCE V. HODGES, head of the urology division.

Southwestern (Texas)

Dr. A. J. GILL has been appointed acting dean of the medical school, and a faculty committee has been selected to recommend a permanent dean. The committee is composed of Dr. GRADY REDDICK, Dr. FRANK SELECMAN, Dr. GLADYS FASHENA, Dr. FRANK HARRISON and Dr. BEN WILSON.

The deanship was formerly occupied by Dr. GEORGE NELSON AAGAARD, who recently became dean of the University of Washington School of Medicine.

Tennessee

The division of pediatrics of the college of medicine has been awarded a total of $40,949 to finance seven different studies.

Mead-Johnson Co. has donated $5,000 to conduct a study of the administration of medicinal agents in youngsters. The Public Health Service has made a grant of $12,449 for continuation of a project on hypertension in children with nephritis, and another $10,000 for an investigation of circulatory and other physiological phenomena in children with sickel cell anemia.

The John and Mary R. Markle Foundation has renewed a $6,000 scholarship, which has been awarded

to Dr. A. H. TUTTLE. Dr. ALBERT HAND, an instructor in pediatrics and pathology, has received a similar award of $5,000 from the Playtex Corp. for studies in pediatric pathology. These awards were made on the recommendation of the faculty. The other awards were $2,000 from the Junior Department of the Nineteenth Century Club, for a cardiac catheterization program, and $500 from Eli Lilly & Co., for research on the possible value of snake venom in the treatment of polio.

Vermont

Dr. E. L. AMIDON, chairman of the department of medicine, was the recipient of the first annual award for being the "best teacher," presented by the local chapter of Nu Sigma Nu.

West Virginia

Excavation work is now under way on the basic sciences building, which will be the first building constructed at the new University Medical Center in Morgantown. The cost will be approximately $11 million.

When completed the basic sciences building will contain more than 1,000 rooms and will provide quarters for instruction in the preclinical years in medicine, nursing and medical technology, as well as facilities for dentistry and pharmacy.

The new medical center will be located on a 145-acre tract within the city limits of Morgantown, approximately two miles from the main university.

Woman's Medical

The college has received a bequest of $30,000 for research in vascular diseases, the gift of Mrs. WILLIAM N. PRICE, widow of the former treasurer of the college.

Here's Good News for

long awaited...

THE PHARMACOLOGICAL BASIS OF THERAPEUTICS SECOND EDITION

by Goodman & Gilman

A complete revision of one of the most widely used textbooks in any field of medicine. Its scope is the correlation of pharmacology with related medical sciences, the reinterpretation of the actions and uses of drugs from the viewpoint of important advances in medicine, and the placing of emphasis on the applications of pharmacodynamics to therapeutics.

This virtually new book continues the clinical approach in offering the student and physician an opportunity to keep abreast of recent advances in therapeutics, and to acquire the basic principles necessary for the rational use of drugs in daily practice.

The pattern of writing, which has made this book the most popular ever published in its field, remains essentially the same as in the first edition. The format is new in size and appearance. The text material is printed in double columns, which increases the amount of words per page, and makes for easier reading. The illustrations are completely new or redone.

1,776 pages, illustrated, probably $18.50.

LOUIS S. GOODMAN, M.A., M.D., Professor of Pharmacology, University of Utah College of Medicine, Salt Lake City, Utah.

ALFRED GILMAN, Ph.D., Professor of Pharmacology, College of Physicians and Surgeons, Columbia University.

The Macmillan Company

60 FIFTH AVENUE, NEW YORK 11, N. Y.

your Spring Classes!

widely adopted...

TEXTBOOK OF BIOCHEMISTRY

SECOND EDITION

by West & Todd

The highly successful first edition is now brought up-to-date with the rapid advances in the area of biochemistry, and presents an improved selection of biochemical fact and theory for the student and instructor. The Brönsted concept of acids and bases is used throughout. The Zwitteron structures of important biological substances are given.

The chapters on the chemistry of the lipids, carbohydrates, and proteins have been extensively rearranged and revised. Particular attention has been given to advances in the chemistry of the nucleic acids.

There are also important revisions in the general classification of enzymes, and coenzyme structures. The old theories of gastric HCL secretion and intestinal fat absorption have been replaced by newer concepts. Much of the material on metabolism has been rewritten to bring it into line with recent advances in this field.

1,440 pages, 67 pages of illustrations, probably $12.00.

EDWARD S. WEST, Ph.D., Professor of Biochemistry and Chairman of Department, University of Oregon School of Medicine.

WILBERT R. TODD, Ph.D., Professor of Biochemistry, University of Oregon School of Medicine, Portland.

The Macmillan Company

60 FIFTH AVENUE, NEW YORK 11, N. Y.

Audiovisual News

Index of Film Reviews Published in the Journal of MEDICAL EDUCATION

May 1951 through October 1954
Anatomy and Physiology

Aortic Valve Movements. Preliminary Study of Unfixed Post-Mortem Valves—April 1954, p. 59

Artificial Respiration—Approved Methods and Techniques—March 1954, p. 61

Artificial Respiration—The Back Pressure Arm Lift Method (Springfield College)—March 1954, p. 61

Artificial Respiration—The Back Pressure Arm Lift Method (Navy)—July 1954, p. 63

The Automatic Nervous System—May 1953, p. 57

Blood Streams in the Basilar Artery—February 1954, p. 59

Cardiac Output in Man—October 1953, p. 63

A Cinematographic Study of the Function of the Mitral Valve in Situ—January 1953, p. 111

Clinical Shock—October 1953, p. 65

Congenital Malformations of the Heart, Reel I: Development of the Normal Heart—July 1952, p. 287

Congenital Malformations of the Heart, Reel II: Acyanotic Congenital Heart Disease—September 1952, p. 359

Congenital Malformations of the Heart, Reel III: Cyanotic Congenital Heart Disease—November 1953, p. 70

Contractions of the Early Embryonic Rat Heart—November 1952, p. 417

Contractions of the Valve of the Foramen Ovale of a Newborn Lamb—June 1954, p. 59

Control of Small Blood Vessels—November 1952, p. 418

Demonstration of Cushing's Experiment on the Dog—October 1953, p. 63

Dividing Cancer Cells in Vitro—January 1952, p. 51

Effects of Massage on the Circulation of the Blood—November 1952, p. 417

The Effects of Metallic Ions and Osmotic Disturbances on the Heart—September 1952, p. 359

Electrocardiography — Volume-Conductor Experiment—November 1952, p. 418

Embryology of the Eye—March 1953, p. 83

The Extracorporeal Diversion of Systemic and Coronary Venous Blood Flow During Auriculotomy and Ventriculotomy—June 1954, p. 59

The First Heart Beats and the Beginning of the Circulation of Blood in the Embryo—September 1952, p. 359

Functional Anatomy of the Hand—January 1953, p. 111

A Functional Study of the Tongue and Velo-Pharyngeal Musculature—February 1954, p. 56

Functions of the Carotid Sinus and Aortic Nerves, Part I: Pressoreceptors Part II: Chemoreceptors—September 1953, p. 73

General Effects of Cold on Man—May 1954, p. 54

General Effects of Heat on Man—May 1954, p. 59

The Heart: Cardiovascular Pressure Pulses—August 1953, p. 69

The Heart: Electrokymography, Venous Catheterization and Angiography—August 1953, p. 70

Heart—Lung Preparation — November 1952, p. 418

Histology and Dynamics of Capillaries and Arteries—April 1953, p. 65

Homologous Heart Grafts—October 1954, p. 60

Inside the Cell: Part I—March 1953, p. 82

Intra-Oral and Pharyngeal Structures and Their Movements—September 1953, p. 74

The Lymphatic System—October 1953, p. 62

Meiosis—Growth Cleavage (Maturation Division) in the Sperm Cells of the Grasshopper Psophus Striduls L.—February 1953, p. 101
Mesenteric Lymphatics. Their Contractions and Behavior of their Valves in the Living Rat—January 1954, p. 62
Patent Ductus Arteriosus—September 1953, p. 74
Perfused Living Animal (Dog) Preparation—April 1954, p. 57
Procedures in the Diagnosis of Cardiovascular Diseases—April 1954, p. 57
Recording Oximeters and Their Applications—June 1954, p. 55
Subcutaneous Blood Flow in the Bat, Reels I and II—July 1952, p. 287
Tumor Cells and Macrophages in Tissue Culture. Rat Sarcomas and Carcinomas—January 1952, p. 51
William Harvey and the Circulation of the Blood—January 1954, p. 63

Anesthesiology

Cardiac Arrest—June 1954, p. 56
Cardiac Resuscitation—September 1954, p. 61
Disaster Anesthesia (Open Drop Ether)—July 1954, p. 62
Resuscitation of Patients Who Die in the Operating Room (of Cardiac Arrest)—September 1953, p. 72

Biochemistry

Inside the Cell: Part I—March 1953, p. 82

Disaster and Military Medicine

And a Voice Shall Be Heard—March 1954, p. 58
Artificial Respiration—Approved Methods and Techniques—March 1954, p. 61
Artificial Respiration—The Back Pressure Arm Lift Method (Springfield College)—March 1954, p. 61
Artificial Respiration—The Back Pressure Arm Lift Method (Navy)—July 1954, p. 63
Atomic Medical Cases: Japan—World War II—November 1951, p. 489
Checking for Injuries—October 1954, p. 57
Chemical Warfare Injuries. Prophylaxis and Therapy—October 1954, p. 60
Disaster Anesthesia (Open Drop Ether)—July 1954, p. 62
Disaster Control—April 1954, p. 61
Disaster on Main Street—May 1954, p. 55
Early Care of Plastic Surgery Cases. Wounds of the Hand—May 1954, p. 55
Earthquake in Ecuador—March 1954, p. 59
Emergency Blood Collection and Administration—April 1954, p. 56
First Aid for Burns in Civil Defense—September 1954, p. 62
First Aid in Major Wounds, Fractures and Burns—March 1954, p. 57
First Aid in the Prevention of Shock—September 1953, p. 73
General Effects of Cold on Man—May 1954, p. 54
General Effects of Heat on Man—May 1954, p. 59
The Medical Effects of the Atomic Bomb, Part I—November 1951, p. 490
The Medical Effects of the Atomic Bomb, Part II—November 1951, p. 490
The Preparation and Use of Human Plasma—May 1954, p. 58
Soft Tissue Wounds—May 1954, p. 58
Survival Under Atomic Attack—March 1954, p. 58
Target U. S. A.—April 1954, p. 55
Transfusion Trends—October 1954, p. 59
Transportation of Casualties—May 1954, p. 55
Trench Foot—November 1952, p. 417
The Use of Gentran as a Plasma Volume Expander—October 1954, p. 58
Use of Whole Blood, Plasma and Concentrated Serum Albumin with Special Reference to Shock—July 1954, p. 59
What You Should Know about Biological Warfare—May 1954, p. 53

Internal Medicine

The Antibiotics and Terramycin—March 1953, p. 84
Arterial Blood Pressure—August 1953, p. 68
Cancer: The Problem of Early Diagnosis—January 1952, p. 51
Cancer: A Research Story—February 1954, p. 55
Cardiac Arrhythmias—November 1952, p. 417
Chest (Physical Diagnosis Series)—April 1953, p. 67
The Diagnosis of Surgical Lesions of the Alimentary Tract, Part I—February 1953, p. 103
The Diagnosis of Uterine Malignancies—March 1952, p. 127
Displacement of the Apical Impulse (Physical Diagnosis Series)—May 1953, p. 57
Electrocardiography — Volume-Conductor Experiment—November 1952, p. 418
Exfoliative Cytologic Method (Balloon Abrasive Method)—February 1954, p. 54

Foxgloves in Medicine—September 1953, p. 75
Functions of the Carotid Sinus and Aortic Nerves, Part I: Pressoreceptors; Part II: Chemoreceptors—September 1953, p. 73
Gastrointestinal Cancer: The Problem of Early Diagnosis—January 1952, p. 52
The Heart: Cardiovascular Pressure Pulses—August 1953, p. 69
Heparin in the Prevention and Treatment of Thrombosis—August 1953, p. 71
Management of the Failing Heart—September 1952, p. 360
Oxygen Therapy in Heart Disease—November 1952, p. 418
Procedures in the Diagnosis of Cardiovascular Diseases—April 1954, p. 57
Psychosomatic Disorders — November 1951, p. 491
The Use of Digitalis in Heart Failure—September 1952, p. 360

Microbiology

Arthropod-Borne Virus Encephalitides —November 1953, p. 68
Breakbone Fever-Dengue—April 1953, p. 67
Cholera Can Be Conquered—April 1953, p. 66
Gram's Stain—October 1953, p. 62
Infectious Hazards of Bacteriological Techniques—July 1954, p. 62
Plague Control—April 1953, p. 66
Pressure Steam Sterilization—October 1953, p. 62
Smallpox and Vaccination—March 1953, p. 79
The Sneeze—February 1954, p. 56
Trichomonal and Monilial Vaginitis—June 1954, p. 53
Tsutsugamushi Prevention — October 1954, p. 61
Typhus in Naples—April 1954, p. 56
Urinary Infections: Bacteriology, Pathology and Treatment—August 1953, p. 69
What You Should Know About Biological Warfare—May 1954, p. 53

Neurology and Neurosurgery

Demonstration of Cushing's Experiment on the Dog—October 1953, p. 63
Injuries to the Peripheral Nerves—March 1952, p. 128
Introduction to Aphasia—March 1953, p. 79
Journey Back—March 1953, p. 82
Sciatic Pain and the Intervertebral Disc —March 1952, p. 128
Seizure: The Medical Treatment and Social Problems of Epilepsy—June 1953, p. 61

Obstetrics and Gynecology

Breast Cancer: The Problem of Early Diagnosis—January 1952, p. 52
Breast Self-Examination—January 1952, p. 52
A Concept of Maternal and Neonatal Care—March 1953, p. 84
The Diagnosis of Uterine Malignancies —March 1952, p. 127
Precancer Diagnosis of Cervix by Cytology—March 1952, p. 127
Radical Operation for Cancer of the Cervix (Wertheim's Operation)—May 1951, p. 26
Trichomonal and Monilial Vaginitis—June 1954, p. 53
Uterine Cancer: The Problem of Early Diagnosis—January 1952, p. 52
The Vaginal and Cervical Smear—March 1952, p. 127

Ophthalmology

Embryology of the Eye—March 1953, p. 83
Glaucoma—What the General Practitioner Should Know—March 1953, p. 84

Orthopedics

The Bone Bank—September 1953, p. 72
Fractures: An Introduction — March 1952, p. 128
Principles of Fracture Reduction—June 1953, p. 62
Sciatic Pain and the Intervertebral Disc —March 1952, p. 128
Scoliosis—Method of Correction and Fusion—March 1953, p. 83

Otorhinolaryngology

The Articulation of English Speech Sounds—Part I (The Consonants)—January 1954, p. 63
Bronchiogenic Carcinoma — February 1953, p. 103
Bronchoscopic Cinematography of Bronchiogenic Tumors—February 1953, p. 102
Bronchoscopic Clinic—July 1952, p. 285
Diseases of the Ear, Nose and Throat—July 1952, p. 286
Diseases of the Esophagus—July 1952, p. 286
Endoscopic Appearance of Diseases of the Trachea—July 1952, p. 286
Foreign Bodies in the Air and Food Passages—July 1952, p. 286
A Functional Study of the Tongue and

Velo-Pharyngeal Musculature—February 1954, p. 56
The Infant Larynx—July 1952, p. 286
Oral Cancer: The Problem of Early Diagnosis—February 1954, p. 59
Organic Disorders of the Larynx—November 1951, p. 490
A Study of Vocal Cord Abnormalities Following Bulbar Poliomyelitis—February 1954, p. 55
They Speak Again—The Rehabilitation of Laryngectomized Patients—November 1951, p. 490
Tumors of the Bronchi—November 1951, p. 490
You Can Hear Again—March 1953, p. 83

Parasitology and Tropical Medicine

Adventure in Sardinia—November 1953, p. 69
African Trypanosomiasis — February 1953, p. 101
Ascariasis (Die Spulwurmkrankheit)—December 1953, p. 90
Asiatic Schistosomiasis—January 1954, p. 66
Cholera Can Be Conquered—April 1953, p. 66
Clinical Malaria—November 1953, p. 69
Control of Filariasis in Tahiti—October 1953, p. 64
The Human Blood Fluke—December 1953, p. 91
Intestinal Obstruction due to Ascaris Lumbricoides—January 1954, p. 65
The Life Cycle of Diphyllobothrium Latum—December 1953, p. 92
Life Cycle of Endamoeba Histolytica—February 1954, p. 56
The Life Cycle of the Malaria Parasite—February 1953, p. 101
Liver Fluke Disease in Sheep (Fascioliasis)—December 1953, p. 92
Manson's Blood Fluke—December 1953, p. 90
Nagana—African Trypanosomiasis of Animals Transmitted by Tsetse Flies—April 1954, p. 59
Onchocerciasis, the Blinding Filariasis—December 1953, p. 91
Sandfly Control—November 1953, p. 68
Scabies—November 1953, p. 66
The Scabies Mite—April 1954, p. 55
Schistosomiasis—December 1953, p. 89
Yaws—April 1953, p. 65

Pathology

Aortic Valve Movements. Preliminary Study of Unfixed Post-Mortem Valves—April 1954, p. 59
Arterial Blood Pressure—August 1953, p. 68
Breast Cancer: The Problem of Early Diagnosis—January 1952, p. 52
Bronchiogenic Carcinoma — February 1953, p. 103
Bronchoscopic Cinematography of Bronchiogenic Tumors—February 1953, p. 102
Bronchoscopic Clinic—July 1952, p. 285
Carcinoma of the Cecum and Ascending Colon—January 1953, p. 110
Cardiac Arrhythmias—November 1952, p. 417
Chest (Physical Diagnosis Series)—April 1953, p. 67
Coarctation of the Aorta—October 1953, p. 64
Cyst of the Urachus—February 1954, p. 60
The Diagnosis of Uterine Malignancies—March 1952, p. 127
Diseases of the Appendix—January 1954, p. 66
Diseases of the Esophagus—July 1952, p. 286
Diseases of the Gallbladder—January 1953, p. 111
Diseases of the Stomach and Duodenum—January 1953, p. 110
Displacement of the Apical Impulse (Physical Diagnosis Series) — May 1953, p. 57
Emergency Blood Collection and Administration—April 1954, p. 56
Endoscopic Appearance of Diseases of the Trachea—July 1952, p. 286
Exfoliative Cytologic Method (Balloon Abrasive Method)—February 1954, p. 54
Foreign Bodies in the Air and Food Passages—July 1952, p. 286
Fractures: An Introduction—March 1952, p. 128
Gall Stone Ileus—June 1954, p. 57
Gastrointestinal Cancer: The Problem of Early Diagnosis—January 1952, p. 52
The Heart: Electrokymography, Venous Catheterization and Angiography—August 1953, p. 70
Hemorrhage from Duodenal Ulcer—January 1954, p. 65
Infectious Hazards of Bacteriological Techniques—July 1954, p. 62
Mesenteric Thrombosis and Adhesion Band Strangulation—January 1953, p. 110
Normal and Abnormal White Cells in Tissue Culture—January 1952, p. 51
Oral Cancer: The Problem of Early Diagnosis—February 1954, p. 59
Organic Disorders of the Larynx—November 1951, p. 490
Polyps of the Large Intestine—January 1953, p. 111

"...BEST METHOD AVAILABLE..."

After giving 'Teldrin' *Spansule* capsules to 30 allergic patients over a 6 month period, Rogers[1] concluded:

"It is our belief that this drug in this form provides the best method available for using antihistamine medication."

'Teldrin' *Spansule* capsules are "the best method available" because they incorporate 3 distinct advantages:

1. They contain chlorprophenpyridamine maleate, the widely prescribed, well-tolerated antihistamine.
2. They release this drug slowly, continuously, and uninterruptedly over a period of 8-10 hours, with a therapeutic effect lasting approximately 12 hours. Side effects are thus held to a minimum.
3. They provide maximum dosage convenience.

TELDRIN*

chlorprophenpyridamine maleate

SPANSULE*

brand of sustained release capsules

S.K.F.'s widely acclaimed new

ANTIHISTAMINE

preparation

made only by

Smith, Kline & French Laboratories, Philadelphia 1

the originators of sustained release oral medication

1. Rogers, H. L.: Ann. Allergy 12:266 (May-June) 1954.

★T.M. Reg. U.S. Pat. Off. Patent Applied For

Precancer Diagnosis of Cervix by Cytology—March 1952, p. 127
The Preparation and Use of Human Plasma—May 1954, p. 58
A Study of Vocal Cord Abnormalities Following Bulbar Poliomyelitis—February 1954, p. 55
Thrombosis and Embolism—March 1953, p. 82
Tumor Cells and Macrophages in Tissue Culture. Rat Sarcomas and Carcinomas —January 1952, p. 51
Tumors of the Bronchi—November 1951, p. 490.
Urinary Infections: Bacteriology, Pathology and Treatment—August 1953, p. 69
Uterine Cancer: The Problem of Early Diagnosis—January 1952, p. 52
The Vaginal and Cervical Smear—March 1952, p. 127
White Thrombo-Embolism in the Minute Cheek Pouch Vessels of the Hamster —September 1952, p. 359

Pediatrics

Children's Emotions—May 1952, p. 209
Communicable Diseases—October 1954, p. 61
A Concept of Maternal and Neonatal Care—March 1953, p. 84
Congenital Malformations of the Heart, Reel I—Development of the Normal Heart—July 1952, p. 287
Congenital Malformations of the Heart, Reel II—Acyanotic Congenital Heart Disease—September 1952, p. 359
Congenital Malformations of the Heart, Reel III—Cyanotic Congenital Heart Disease—November 1953, p. 70
Grief—Peril in Infancy—February 1953, p. 102
The Infant Larynx—July 1952, p. 286

Pharmacology

The Antibiotics and Terramycin—March 1953, p. 84
The Autonomic Nervous System—May 1953, p. 57
The Effects of Metallic Ions and Osmotic Disturbances on the Heart—September 1952, p. 359
Foxgloves in Medicine—September 1953, p. 75
Heart — Lung Preparation — November 1952, p. 418
Heparin in the Prevention and Treatment of Thrombosis—August 1953, p. 71
Hypertensive Crises—February 1954, p. 58
Management of the Failing Heart—September 1952, p. 360
The Use of Digitalis in Heart Failure—September 1952, p. 360

Physical Medicine and Rehabilitation

Clinical Shock—October 1953, p. 65
Effects of Massage on the Circulation of the Blood—November 1952, p. 417
Journey Back—March 1953, p. 82
Living with Limitations—March 1953, p. 82
On Our Own—March 1952, p. 128
Resistive Exercises in Physical Therapy for Thoracoplasty—March 1952, p. 128
Seizure: The Medical Treatment and Social Problems of Epilepsy—June 1953, p. 61
Social Adjustment of the Aphasic Patient—September 1951, p. 411
They Speak Again—The Rehabilitation of Laryngectomized Patients—November 1951, p. 490
You Can Hear Again—March 1953, p. 83

Preventive Medicine and Public Health

Adventure in Sardinia—November 1953, p. 69
African Trypanosomiasis—February 1953, p. 101
Arthropod-Borne Virus Encephalitides —November 1953, p. 68
Asiatic Schistosomiasis—January 1954, p. 66
Breakbone Fever—Dengue—April 1953, p. 67
Clinical Malaria—November 1953, p. 69
Communicable Diseases—October 1954, p. 61
Control of Filariasis in Tahiti—October 1953, p. 64
Earthquake in Ecuador—March 1954, p. 59
The Eternal Fight—March 1954, p. 59
Habits and Characteristics of the Rat: The Norway Rat—February 1954, p. 58
The Human Blood Fluke—December 1953, p. 91
The Life Cycle of the Malaria Parasite —February 1953, p. 101
Manson's Blood Fluke—December 1953, p. 90
Nagana—African Trypanosomiasis of Animals Transmitted by Tsetse Flies—April 1954, p. 59
Onchocerciasis, the Blinding Filariasis —December 1953, p. 91
Plague Control—April 1953, p. 66
Sandfly Control—November 1953, p. 68
Scabies—November 1953, p. 66
Schistosomiasis—December 1953, p. 89

CAMBRIDGE EDUCATIONAL CARDIOSCOPE

A NEW VALUABLE AID IN TEACHING CARDIOLOGY

THIS instrument is used in many of the leading medical schools for teaching electrocardiography and auscultation by audio-visual demonstration. The electrocardiogram, heart sounds and other physiological phenomena—vectorcardiogram, EKY, BCG, intracardiac blood pressure—may be shown continuously on the 16" picture tube coated with a long persistence screen. Simultaneously the related heart sounds of the patient may be heard, through individual stethophones by the group viewing the physiological data.

A special high fidelity tape recorder provides means for permanently recording heart sounds as they are heard through the stethoscope. These tape recordings (in lieu of patients) may be played back at any time. The Recorder also facilitates collection of a library of pathological heart sounds. An entire lecture including illustrative heart sounds may be recorded and subsequently viewed and heard over the stethophone circuit.

Instructors and students alike declare that the Cambridge Educational Cardioscope has brought about a new era in the teaching of Cardiology. One instructor can handle five to ten times as many students and with greater effectiveness.

Write for detailed information

CAMBRIDGE INSTRUMENT CO., Inc.

3732 Grand Central Terminal

New York 17, N. Y.

Chicago 12, 2400 West Madison Street
Philadelphia 4, 135 South 36th Street
Cleveland 15, 1720 Euclid Avenue
Detroit 2, 7410 Woodward Avenue

PIONEER MANUFACTURERS OF THE ELECTROCARDIOGRAPH

Smallpox and Vaccination—March 1953, p. 79
The Sneeze—February 1954, p. 56
Typhus in Naples—April 1954, p. 56
Yaws—April 1953, p. 65

Psychiatry and Mental Health

Activity for Schizophrenia: Technique for Corrective Therapy—May 1952, p. 208
Activity Group Therapy—November 1951, p. 491
Angry Boy—May 1952, p. 209
Breakdown—May 1952, p. 208
Children's Emotions—May 1952, p. 209
Emotional Health—May 1952, p. 209
Fears of Children—July 1952, p. 287
The Feeling of Hostility—September 1951, p. 411
Feeling of Depression—September 1951, p. 411
Grief—A Peril in Infancy—February 1953, p. 102
Introduction to Aphasia—March 1953, p. 79
A Psychoneurosis with Compulsive Trends in the Making—February 1953, p. 102
Psychosomatic Disorders — November 1951, p. 491
Psychotherapeutic Interviewing Series—Part II: A Method of Procedure—February 1953, p. 102
Psychotherapeutic Interviewing Series—Part III: An Approach to Understanding Dynamics—August 1953, p. 68
Shades of Gray—May 1952, p. 208
Social Adjustment of the Aphasic Patient—September 1951, p. 411
The Steps of Age—May 1952, p. 209
Testing and Individual Therapy for the Aphasic Patient—September 1951, p. 411

Radiology

The Heart: Electrokymography, Venous Catheterization and Angiography—August 1953, p. 70

Surgery

The Bone Bank—September 1953, p. 72
Bronchiogenic Carcinoma — February 1953, p. 103
Carcinoma of the Cecum and Ascending Colon—January 1953, p. 110
Cardiac Arrest—June 1954, p. 56
Cardiac Resuscitation—September 1954, p. 61
A Cinematographic Study of the Function of the Mitral Valve in Situ—January 1953, p. 111

Coarctation of the Aorta—October 1953, p. 64
Cyst of the Urachus—February 1954, p. 60
The Diagnosis of Surgical Lesions of the Alimentary Tract, Part I—February 1953, p. 103
Diseases of the Appendix—January 1954, p. 66
Diseases of the Gallbladder—January 1953, p. 111
Diseases of the Stomach and Duodenum —January 1953, p. 110
Early Care of Plastic Surgery Cases. Wounds of the Hand—May 1954, p. 55
The Extracorporeal Diversion of Systemic and Coronary Venous Blood Flow During Auriculotomy and Ventriculotomy—June 1954, p. 59
First Aid in Major Wounds, Fractures and Burns—March 1954, p. 57
First Aid in the Prevention of Shock—September 1953, p. 73
Gall Stone Ileus—June 1954, p. 57
Hemorrhage from Duodenal Ulcer—January 1954, p. 65
Heparin in the Prevention and Treatment of Thrombosis—August 1953, p. 71
Homologous Heart Grafts—October 1954, p. 60
Injuries to the Peripheral Nerves—March 1952, p. 128
Interatrial Septal Defects. Experimental Closure with Machine—October 1954, p. 58
Intestinal Obstruction due to Ascaris Lumbricoides—January 1954, p. 65
Intra-Oral and Pharyngeal Structures and Their Movements—September 1953, p. 74
Ligation and Stripping Treatment for Varicose Veins—June 1954, p. 55
Mesenteric Thrombosis and Adhesion Band Strangulation—January 1953, p. 10
Patent Ductus Arteriosus—September 1953, p. 74
Polyps of the Large Intestine—January 1953, p. 111
Portacaval Shunt—June 1954, p. 56
Radical Operation for Cancer of the Cervix (Wertheim's Operation)—May 1951, p. 26
Resuscitation of Patients Who Die in the Operating Room (of Cardiac Arrest)—September 1953, p. 72
Scoliosis—Method of Correction and Fusion—March 1953, p. 83
Soft Tissue Wounds—May 1954, p. 58
Technic for Mitral Commissurotomy—November 1953, p. 70
Thrombosis and Embolism—March 1953, p. 82
Transfusion Trends—October 1954, p. 59
Trench Foot—November 1952, p. 417
The Use of Gentran as a Plasma Volume Expander—October 1954, p. 58
Use of Whole Blood, Plasma and Concentrated Serum Albumin with Special Reference to Shock—July 1954, p. 59
Vascular Injuries—September 1952, p. 360
Venepuncture—September 1953, p. 71
Visual Surgery in the Open Heart During Hypothermia—June 1954, p. 57

Laity

Breast Self-Examination—January 1952, p. 52
Checking for Injuries—October 1954, p. 57
Emotional Health—May 1952, p. 209
The Eternal Fight—March 1954, p. 59
Fears of Children—July 1952, p. 287
The Feeling of Hostility—September 1951, p. 411
Feelings of Depression—September 1951, p. 411
First Aid for Burns in Civil Defense—September 1954, p. 62
Shades of Gray—May 1952, p. 208
The Steps of Age—May 1952, p. 209
Survival under Atomic Attack—March 1954, p. 58
Target U. S. A.—April 1954, p. 55
Transportation of Casualties—May 1954, p. 55
William Harvey and the Circulation of the Blood—January 1954, p. 63

Babcock's Principles and Practice of Surgery

Edited by KARL C. JONAS, B.S., M.D., M.S. (Surg.), F.A.C.S., F.I.C.S.

Department of Surgery, Temple University School of Medicine and Hospital, Philadelphia, Pa.

56 Collaborating Authors

New 2nd Edition. Every aspect of surgery, including nature, diagnosis and treatment, is given in this authoritative one-volume work. Each author writes on the subjects in which he is best qualified and presents his material in the manner found most successful in instructing medical students. In this enlarged, fully revised edition, the sequence of presentation has been rearranged to meet modern-day teaching requirements.

New 2nd Edition. 1543 Pages, 7" x 10". 1006 Illustrations and 10 Plates in Color. $18.00

Gray's Anatomy

By HENRY GRAY, F.R.S.

26th Edition Edited by CHARLES MAYO GOSS, M.D.

Managing Editor of the Anatomical Record; Professor of Anatomy, Louisiana State University School of Medicine, New Orleans, La.

New 26th Edition. The success of Gray's Anatomy lies in its effectiveness as a text for medical students. Thoroughly revised, this "*greatest of all textbooks on anatomy*" has an improved text arrangement. Other features include a rewritten chapter on the peripheral nervous system, an enlarged section on the autonomic nervous system, revised chapter on embryology, new chapter on the heart, and new illustrations. The legends of all illustrations have been reset in larger, easy-to-read type.

New 26th Edition. 1480 Pages. 7" x 10". 1202 Illustrations, mostly in Color. $16.00

Herbut—Surgical Pathology

By PETER A. HERBUT, M.D.

Professor of Pathology, Jefferson Medical College and Director of Clinical Laboratories, Jefferson Medical College Hospital, Philadelphia, Pennsylvania

New 2nd Edition. Dr. Herbut treats the subject from a regional point of view and summarizes the newer ideas found in current literature. All of the major specialties are covered, each with sufficient detail to give a basic understanding of the subject. The embryology and histology of each system is included. This enlarged edition contains much new and rewritten material, and 124 additional illustrations.

New 2nd Edition. 893 Pages. 528 Illustrations. $14.00

Washington Square **LEA & FEBIGER** Philadelphia 6 Pennsylvania

Book Reviews

Radiology for Medical Students, 2nd edition

Fred Jenner Hodges, M.D., **Isadore Lampe,** M.D. and **John Floyd Holt,** M.D. The Year Book Publishers, Inc., Chicago, 1954. 426 pp. with index. $10.

The second edition of this text deserves the widespread acceptance accorded its forerunner. Comprising an excellent introductory textbook, only by its title is this volume restricted to medical students.

The broad yet surprisingly thorough coverage qualifies it for the postgraduate level as well. It is highly recommended for beginning residents in radiology.

The concise, clear text and numerous illustrations of the first edition are preserved. Additions and minor revisions have been incorporated to cover interval developments such as contrast cardiovascular studies and radioisotopes. The references have been brought up-to-date. The backbone of the original edition has been maintained; now the second edition unites the epiphyses.

Charles T. Dotter, *Oregon*

University Education in Administration in Hospitals

A Report of the Commission on University Education in Hospital Administration, 1954. American Council on Education, Washington, 1954. 166 pp. $3.

This report contains some excellent analytical statements of the characteristics of hospital administration and the qualities required of hospital administrators. Unfortunately these general statements are given insufficient weight in the pattern of education which is purported to be based upon them. Also, some of the conclusions are based upon inaccurate assumptions, and the report contradicts itself in several places.

One example of the type of wrong assumption which may be made because of insufficient information (and after all, one year is an exceedingly short time in which to try to gather all of the facts in so intricate a field as hospital administration), is the statement in connection with admission of doctors and nurses to the courses that "the environmental knowledge they have gained from their previous training has not been acquired from an administrative point of view."

Actually, no nurse has been admitted from bedside nursing and no doctor from medical practice alone, as far as I know. They were engaged in nursing or medical administration; the purpose in enrolling was to broaden and to change their type of work. Nowhere near as much orientation to administrative concepts is required for these professional people as the report would lead the casual reader to believe. They are in fact much more aware of the most difficult administrative problems in hospitals than are the students whose background is in business administration.

Another wrong inference is to attribute to lessening demand the decline in numbers of hospital administrators who are graduates in medicine and nursing. Those of us who have had long experience in helping to fill administrative posts know that the demand remains high. It is the supply that is low. This is because, in the evolution of medicine and hospitals, more administrative positions are open to doctors and nurses, some of which are of a departmental nature but are attractive and well paid. Good medical administrators are easy to place and I believe they always will be.

The report in several places stresses heavily the desirability of homogeneity in the student body—preferably all between the ages of 21 and 27—and all coming directly to the graduate programs from undergraduate majors in business administration. Yet in discussing the idea of establishing separate courses for doctors and nurses, the following statements are made: "The contact with fellow students of the affiliated disciplines would be lost. Likewise the value of association with physicians and nurses would be lost to the students of other programs."

With this latter concept I heartily agree—students with varying backgrounds contribute a great deal to each

other's knowledge and insight. Business administration graduates who associate with doctors and nurses as fellow students will get along much better with professional people when they embark upon hospital administration than will those whose classmates are all moulded in the same pattern. A hospital is of all organizations probably the most heterogeneous—why therefore prohibit heterogeneity in hospital administration classes? One of the most important things we should teach these students is to understand and appreciate the contributions of many different kinds of personnel to care of the patient—why not orient them in the classroom to the differences they will encounter on the job?

The fact that a hospital is an educational institution is well emphasized in one part of this report—but ignored in another when the programs are criticized for using "practitioners" rather than "educators" as faculty. The hospital administrators, chiefs of medical staffs, directors of nurses, heads of departments and executives of medical and hospital associations, who serve the programs as teachers, devote a large part of their time to formal and informal education. They are educators who have their feet on the ground through daily contact with the problems which they expound to the students.

Despite these cautions against overliteral acceptance of the report, I feel strongly that its publication will accelerate the progress of the programs. Differences of opinion are immaterial compared with the stimulus it will give to thinking, planning, and building for constantly improving education in hospital administration.

Malcolm T. MacEachern, *Northwestern*

Histology

Edited by **Roy O. Greep.** The Blakiston Co., Inc., New York, 1954. 953 pp. with index. 648 illustrations. $15.

This book, originally conceived as the seventh edition of the Bremer-Weatherford "Textbook of Histology," became the new text when the manuscript was completed. The above work is the joint effort of the editor and 12 contributors, all of whom have taught microscopic anatomy at Harvard University.

Though morphology of the human tissues has received major consideration throughout the text, the functional approach has been utilized. A chapter on histochemistry, in which methods for the chemical identification of cellular substances are briefly considered, follows the introduction to cellular structure and function. The remainder of the book is concerned with the study of the fundamental tissues and organ systems. The short discussions on the developmental processes in each chapter not only serve to describe the embryology of the organ but also of the vestigial remnants which may possibly be observed.

The illustrations, 43 of which are in color, are more numerous than in the Bremer-Weatherford text. Many are informative electron micrographs or photomicrographs illustrating pertinent histochemical data. Occasionally, more complete descriptions of the illustrations would be of value to the student. The references to the pertinent literature are placed at the end of each chapter. Infrequently investigators who are mentioned in the chapter fail to appear in the bibliography.

The book is well written and factual, pointing out areas in which conclusions await the results of further research. The major deterrents for the ready acceptance of the text may be its length and cost.

Arthur J. Gatz, *Stritch*

Growth and Development of Children, 2nd edition

Ernest H. Watson, M.D. and **George H. Lowrey,** M.D. The Year Book Publishers, Inc., Chicago, 1954. 285 pp. with index.

This book is a valuable addition to the literature pertaining to the physical development of children. It integrates material from embryology, physical anthropology, physiology, nutrition and child psychology.

The first edition of the book was printed in 1951, and the demand for the book was so great that it warranted another edition. The major change in this edition from the earlier one is the inclusion of material on the graphical and statistical recording of growth. This book has had a long and careful development. It originally began as a manual for undergraduate students in the department of pediatrics of the University of Michigan Medical School, and was later used as a manual for special classes in the school of public health. It was then expanded to meet the needs of graduate students and pediatric residents, who found it very useful in preparing them for their American Board examinations.

Aside from pediatrics, the book should be of value in nursing, child psychology, home economics and education (the material on the measurement of physical growth should be of particular interest to teachers in our elementary schools).

R. A. D.

Textbook of Pediatrics, 6th edition

Edited by **Waldo E. Nelson,** M.D. W. B. Saunders Co., Philadelphia, 1954. 1501 pp. with index. $15.

This sixth edition contains 1581 pages as compared to the 1950 edition. There are 71 contributors (20 of them new) besides the author, in contrast to the previous 62. Many chapters have been rewritten and moderately condensed, yet there has been expansion for new material. For instance, in the chapter on congenital heart disease there have been added 21 pages.

This text, like the former edition, is broad in scope and comprehensive as to all phases of pediatrics. It is very well balanced and has been kept up to date with current pediatric teaching and practice. Besides covering all the medical problems of infants and children, there are adequate chapters on growth and development and the psychiatric and emotional problems.

This text is well written and well printed. The organization is excellent, so that subjects are easy to find. The table of contents covers nearly eight pages. It is well illustrated, containing 440 figures and 127 tables.

This text continues to be a standard for medical students, house officers, pediatricians and general practitioners.

John A. Bigler, *Northwestern*

Cerebrovascular Disease

James Peter Murphy, M.D. The Year Book Publishers, Inc., Chicago, 1954. 392 pp. $12.

The increasing frequency of cerebrovascular disease along with better techniques in its early recognition make this volume a timely one. In it the author has grouped together those lesions affecting the brain that are primarily of vascular origin.

He has preceded his discussion of clinical disease with a brief review of the embryology, anatomy and physiology of the cerebral vessels and cerebral blood flow, and as a whole these complex subjects have been treated unusually well. Because the blood supply of the brain is so completely concerned with the energy requirements, one could hope for a better consideration of the biochemical factors involved. At the same time, with a subject that has as many ramifications as does cerebrovascular disease, the problem of where to stop becomes a serious one, and one therefore has a great deal of sympathy for the author's predicament. This is well illustrated in the fact that it has been necessary to cover the discussion of the etiology and pathogenesis of arteriosclerosis in slightly more than one page. Nevertheless, almost 100 pages of the volume are devoted to the more fundamental considerations.

Both the common as well as some of the occasional lesions are discussed with care and with a source of information that is up-to-date. Given particular consideration are the acute cerebrovascular accidents, and these are considered first as a group from the standpoint of examination because such a patient "presents a difficult and often troublesome problem of diagnosis and emergency care which cannot be resolved by cursory inspection, casual management and complete reliance on watchful waiting."

Individual consideration is then given to cerebral vasospasm, thrombosis, embolism, hemorrhage and subarachnoid bleeding, in particular from intracranial aneurysm. The author also considers vascular tumors of the angiomatous and arteriovenous types, intracranial venous disease, hypertensive brain disease and cerebral arteriosclerosis.

There is a short review of the inflammatory diseases and blood dyscrasias with final general consideration of the patient in terms of management, diagnostic techniques and therapeutic techniques. Where brevity has been necessary, good bibliography has been appended. Indeed, this represents a valuable portion of the book. The illustrations are also wisely chosen, and particularly recommended are the drawings of Phyllis Anderson.

The grouping together of all cerebrovascular disease in one volume represents a good achievement, and although this reviewer is a general surgeon, he finds himself indebted to the author for bringing such material together for general reference and can recommend this book enthusiastically to others regardless of their special interests in medicine.

Nathan A. Womack, *North Carolina*

FOR YOUR CONVENIENCE IN ORDERING

Memo from LITTLE, BROWN & COMPANY

Check the following new books that will help you most, fill in the coupon below and mail. We will be happy to forward your choices on 15-DAY APPROVAL.

☐ **CURRENT CONCEPTS IN DIGITALIS THERAPY, by Bernard Lown, M.D., and Samuel A. Levine, M.D.** This thorough guide to the digitalis drugs explains when to administer, which preparation to use, how to maintain digitalization, and how toxicity can be recognized and treated. Ready. $4.50

☐ **CLINICAL ASPECTS OF THE AUTONOMIC NERVOUS SYSTEM, by Lois Gillilan, M.D.** A concise discussion of the role of the autonomic nervous system in the diagnosis and treatment of disease. Part I — Anatomy and Physiology. Part II — Clinical Applications. Ready. $6.50

☐ **LEUKEMIA RESEARCH.** The present status of research in leukemia, as revealed in the Ciba Foundation Symposium, and the directions in which further research might most profitably be pursued. Ready. $6.75

☐ **ATLAS OF HUMAN ANATOMY, by Werner Spalteholz.** The new 15th edition revised by Dr. Rudolph Spanner. 1,385 magnificent drawings (385 brand new), mostly in four colors. Basle nomenclature with English index. 2 volumes. $23.00

☐ **ANATOMY: REGIONAL AND APPLIED, by R. J. Last, M.D.** The first *new* regional and applied anatomy in many years — designed for the postgraduate or for the practicing physician, particularly those seeking a good, reasonably priced review before taking boards. 309 illustrations, many in color. Ready. $9.50

☐ **HYPERTENSION; Humoral and Neurogenic Factors.** The report of the Ciba Foundation Symposium on the problems of hypertension and its effect on the cardiovascular system from the functional point of view. Ready. $6.75

☐ **PROGRESS IN CLINICAL SURGERY, a symposium edited by Rodney C. Smith, M.S., F.R.C.S.** This volume spotlights surgical progress of the last fifteen years. For the use of postgraduate students and the younger surgeon with a recent hospital appointment. Illustrated. Ready. (T) $7.50

☐ **THE PHYSICIAN AND HIS PRACTICE, edited by Joseph Garland, M.D.** Eighteen noted authorities contribute to a source book for the young, or not so young, doctor on all aspects of his career. Ready. $5.00

Your Favorite Bookstore or ME-10

LITTLE, BROWN & COMPANY, 34 Beacon Street, Boston, Massachusetts

NAME_____

ADDRESS_____

Books and Pamphlets Received

(As space permits, those with the greatest interest to our readers will be reviewed)

Diseases of the Skin, 4th edition

George Clinton Andrews, M.D., F.A.C.P. W. B. Saunders Co., Philadelphia, 1954. 819 pp.

Principles and Practice of Surgery (Babcock's)

Edited by **Karl C. Jonas,** M.D. Lea & Febiger, Philadelphia, 1954. 1543 pp. with index. $18.

Bentley's Textbook of Pharmaceutics, 6th edition

Revised by **Harold Davis,** with the collaboration of **M. W. Partridge,** and **C. L. Sargent.** Bailliere, Tindall and Cox, London, 1954. 1047 pp. $10.

Fundamentals of Internal Medicine, 4th edition

Wallace M. Yater, M.D., Appleton-Century-Crofts, Inc., New York, 1954. 1240 pp. with index. $13.50.

Handbook of Medical Secretary, 3rd edition

Miriam Bredow. Gregg Publishing Division, McGraw-Hill Book Co., Inc. 335 pp.

Pharmacologic Principles of Medical Practice, 3rd edition

John C. Krantz Jr. and **C. Jelleff Carr.** The Williams & Wilkins Company, Baltimore, 1954. 1149 pp. with index. $12.

Textbook of Pediatrics, 6th edition

Edited by **Waldo E. Nelson,** M.D. W. B. Saunders Co., Philadelphia, 1954. 1501 pp. with index.

Plague

R. Pollitzer, M.D. World Health Organization, Geneva, 1954. 619 pp. with annexes. $10.

Cerebrovascular Disease

James Peter Murphy, M.D. The Year Book Publishers, Inc., Chicago, 1954. 393 pp. $12.

Practical Physiological Chemistry, 13th edition

Philip B. Hawk, Bernard L. Oser and **William H. Summerson.** The Blakiston Co., Inc., New York, 1954. 1320 pp. with index. $12.

Human Biochemistry, 4th edition

Israel S. Kleiner, Ph.D. The C. V. Mosby Co., St. Louis, 1954. 684 pp. with index. $7.50.

Anatomy Regional and Applied

R. J. Last, M.B., B.S. (Adel.), F.R.C.S. Little Brown & Co., Boston, 1954. 631 pp. with index. $10.

A New, Challenging Book

THE MEANING OF SOCIAL MEDICINE

By IAGO GALDSTON, M.D. In this readable and thought-provoking book Dr. Galdston explains what social medicine is and what it can accomplish by its orientation toward the achievement of health rather than the cure of disease. He distinguishes between social medicine and governmental health services (commonly referred to as socialized medicine), recounts the history of the changes in medicine and in society which have created the need for social medicine, analyzes the development of social medicine in England as well as in the United States, and shows how the necessary reforms in medical treatment and medical education can be effected. His book is a challenge to a fundamental change in attitude, practices, and teaching. It lays on society and on medicine the responsibility, not merely to cure the individual's disease, but to help him attain health, to guide him in the effective achievement of the adventure of living.

$2.75

A COMMONWEALTH FUND BOOK

At Your Bookstore, or

HARVARD UNIVERSITY PRESS

Cambridge 38 Massachusetts

Individual Membership

in the

Association of American Medical Colleges

For the first time in 1954, medical college teachers and administrators, and other persons interested in medical education have the opportunity to become Individual Members of the Association.

Individual Membership means receiving the Journal of Medical Education each month. It means participating in the discussions of the Annual Meeting and receiving the reports of the Teaching Institutes. It means receiving copies of the yearly *Directory*, the *Proceedings* of the Annual Meeting, the booklet on "Admission Requirements of American Medical Colleges," and other regular Association publications. And it makes available a valuable, though limited, information service and a personnel exchange service.

Individual Membership, at only $10 a year, is open to any person who has demonstrated a serious interest in medical education over a period of years. All the privileges of membership begin immediately after payment of the $10 fee, although confirmation must await official action at the next Annual Meeting.

To obtain membership, fill out the application form below, append check for $10, and return to the Association's central office at 185 N. Wabash Ave., Chicago 1, Ill.

INDIVIDUAL MEMBERSHIP APPLICATION

Association of American Medical Colleges
185 N. Wabash Ave.
Chicago 1, Ill.

Name_____

Mailing Address_____

_____
(City) (Zone) (State)

Field of medical education in which chief interest lies_____

_____

College or other connection_____

The Personnel Exchange

Faculty Vacancies

• THE BOWMAN GRAY SCHOOL of Medicine offers a one-year fellowship in PREVENTIVE MEDICINE. Opportunities for teaching in internal medicine and preventive medicine, for furthering training in internal medicine, and for individual research in one of several fields. Applicant should have at least two years of postgraduate training, one of which should be internal medicine. Salary $4500 married, $4200 single. Address: V-20.

• CHILD PSYCHIATRIST: Joint appointment in department of pediatrics and psychiatry. Ample opportunities for research and teaching. Rank and salary depend upon qualifications. Staff and service of department will be expanded considerably in near future. Write to Dr. Reynold A. Jensen, Division of Child Psychiatry, University of Minnesota Hospitals, Minneapolis, Minn.

• RESEARCH DIRECTOR: To develop an active research program for the Saratoga Spa at Saratoga Springs, N. Y. Ph.D. with experience in physiology. Knowledge of biochemistry also useful. Permanent New York State Civil Service position (G-27 with salary of $6,562-7,993). Possible appointment to teaching staff of Albany Medical College. Write: Dr. Frank W. Reynolds, Medical Director.

• PHARMACOLOGY: The University of Alberta invites applications for the position of associate professor of pharmacology, in the department of physiology and pharmacology, effective September 1, 1954, at a salary within the range of $5,250-6,250 per annum (not including cost-of-living bonus now approximatly $300), depending on qualifications. Duties include lecture and laboratory courses for medical and dental students and a program of research work. Applications should include a recent photograph or snapshot, a curriculum vitae, and three references. Address: Dean of Medicine, University of Alberta, Edmonton, Alberta, Can.

• BACTERIOLOGY: Applications are invited for position, department of bacteriology, Hebrew University-Hadassah Medical School, Jerusalem, Israel. Duties to commence October 1, 1954. Position vacancy in grade instructor, assistant or associate professor depending on qualifications. For further information write Dr. Joseph Hirsh, Executive Secretary, Medical Advisory Board, 9 East 89th St., New York 28, N. Y.

• OPHTHALMOLOGIST: Full-time teaching and research faculty appointment. Excellent research and clinical facilities. Rank and salary depend upon qualifications. Address: V-19.

• CLINICAL ISOTOPE RESEARCH: Internist or other qualified physician desiring career in research and teaching. Staff position with unusual opportunities to use isotope techniques. Clinical and laboratory facilities for independent and group research. University affiliation. Address: Dr. Marshall Brucer, Oak Ridge Institute of Nuclear Studies, Box 117, Oak Ridge, Tenn.

• TOXICOLOGIST OR PHARMACOLOGIST: Graduate school of public health in large university has a staff opening for a toxicologist or pharmacologist. Department with a broad interest in a new, expanding field of industrial chemicals is seeking a person to carry on toxicological studies and offers opportunity for fundamental research on mechanisms of toxicity. Recent graduates considered. Some graduate teaching if desired. Address: Box V-24.

• The department of medicine of an Eastern medical school anticipates a temporary vacancy in its subdepartment of endocrinology and metabolic disease in July 1955, while one of the faculty completes his armed service requirements. It is interested in securing a highly qualified man to fill this vacancy during the one or two years leave of absence of the incumbent.

Unfortunately no commitments can be made at this time regarding occupancy of a faculty appointment when the present incumbent returns. Salary, job description and other details will be discussed with any qualified and experienced physician and teacher who inquires about the temporary vacancy. Address: V-23.

• FELLOWSHIPS IN NEUROLOGY are available in the University of Buffalo School of Medicine. Facilities for training in basic neurology, neurophysiology, child neurology. $3,000 yearly. Write Stockton Kimball, M.D., dean, University of Buffalo School of Medicine, Buffalo 14, N. Y.

OUR 37 TH YEAR

WOODWARD

Medical Personnel Bureau

FORMERLY ATKOE'S

3rd Floor • 185 N. WABASH • CHICAGO 1

• • • ANN WOODWARD, Director

Founders of the counseling service to the medical profession, serving medicine with distinction over half a century.

ACADEMIC OPPORTUNITIES IN MEDICINE, SURGERY AND THE SCIENCES. PLEASE SEND FOR OUR ANALYSIS FORM SO WE MAY PREPARE AN INDIVIDUAL SURVEY FOR YOU.

TO THOSE SEEKING DOCTORS OF MEDICINE AND SCIENTISTS FOR ACADEMIC POSTS PLEASE WRITE US FOR RECOMMENDATIONS OF WELL QUALIFIED MEN AND WOMEN.

STRICTLY CONFIDENTIAL

ACCURATE IN ANY POSITION!

DOCTORS everywhere depend on the accuracy of Tycos* blood pressure instruments. The Pocket Aneroid gives that accuracy in any position . . . and it will stay that way unless misused. You know it's accurate as long as the pointer returns to zero . . . an easy visual check. Weighing only 19 ounces, this Aneroid is the *ideal* bedside instrument. It fits in a zipper case that can easily be slipped in your pocket or bag. Exclusive hook cuff fits any adult arm—on and off in a jiffy. See this instrument at your favorite surgical supply dealer. Price **$42.50.** Taylor Instrument Companies, Rochester, N. Y., and Toronto, Canada.

Taylor Instruments
MEAN ACCURACY FIRST

To aid in solution of the problem of faculty vacancies, MEDICAL EDUCATION will list persons and positions available, as a free service. The school department or person may have the option of being identified in these columns or of being assigned a key number for each position listed. Mail addressed to key numbers will be forwarded to the person or department listing the request.

Information for these columns should reach the Personnel Exchange Editor, 185 N. Wabash Ave., Chicago 1, Ill., not later than the 10th of the month which precedes the month in which the listings will appear.

• PHYSIATRIST: To head new department of physiatry and rehabilitation, University of Nebraska College of Medicine at Omaha. Basic guarantee plus consultation privileges. Address: H. B. Hunt, M.D., University of Nebraska hospital, Omaha 5, Neb.

Personnel Available

• PATHOLOGIST: M.D., 43, board certified in pathologic anatomy and clinical pathology. 17 years well-rounded experience in large hospital laboratory, medical school teaching and residency programs. Many scientific publications. Special interests include tropical medicine and hematology. Seeks position in foreign country, preferably in tropics. Address: A-121.

• SURGEON: 38, married, veteran. Diplomate of the American Board of Surgery. Training in general surgery with fellowship in tumor surgery. Background of research in biochemistry. Desires teaching position with opportunity for research; U. S. or foreign. Available July 1. Address: A-111.

• ORTHOPEDIC SURGEON: 36; certified; university trained; M.S. (orthopedic surgery) experience in traumatic surgery and rehabilitation of severely disabled. Seeks association with diplomate and university hospital affiliation. Address: A-112.

• PHYSIOLOGIST—MICROBIOLOGIST: Man, Ph.D., 30, veteran. 7 years experience in teaching physiology, microbiology and histology, medical school level. Member of scientific societies. Desires teaching fellowship with opportunity to work for M.D. in return for tuition and stipend. Prefer Canada or U. S. Goal—radiology. Available in fall. Address A-113.

• PHARMACOLOGIST-PHYSIOLOGIST: M.S., Zoology; Ph.D. expected June 1954. Experienced in pharmaceutical research, teaching experience in pharmacy during army service. Desires research and teaching position in physiology and pharmacology. Special interest in endocrinology. Member scientific societies, Sigma Xi. Publications; references. Address: A-114.

• M.D., M.P.H.: Diplomate of Board of Public Health and Preventive Medicine desires to head department of PUBLIC HEALTH and PREVENTIVE MEDICINE in medical school. 14 years varied experience in field combined with teaching at undergraduate and graduate levels. Capable of integrating this subject with rest of medical school curriculum. Address. A-115.

• ANATOMIST: 28, Ph.D. in anatomy. Desires teaching position at medical, dental or pharmacy school. Will consider teaching gross anatomy, histology, embryology or neuroanatomy. Chief interest is neuroanatomy. Continental U. S. school only. Available now. Address: A-122.

• PHYSIOLOGIST-ENDOCRINOLOGIST: Man, 31, Ph.D. 5 years experience in teaching and research at Harvard University. Seeking full-time academic position. Extensive experience in physiology, general endocrinology, endocrinology of reproduction, human heredity, research methodology, histology and zoological sciences. Will accept administrative duties and responsibilities. Salary secondary to good future. Address A-117.

• HISTOLOGIST-HISTOCHEMIST: Ph.D. Harvard; young man, teaching and research experience. Publications; member of scientific organizations. Interested in obtaining teaching or research position in eastern U. S. Address: A-118.

• LABORATORY SUPERVISOR: Administrative and/or teaching position in medical technology. 10 years supervisory experience. B.S. in bacteriology. Graduate credits in biochemistry, histology and pathology. Laboratory officer, Sanitary Corps, Medical Department, U. S. Army 4 years (captain). Publications; references. Seeks stimulating position, preferably with academic affiliation. Address: A-119.

• SURGEON: 32; American Board of Surgery certified. Married. Interested in academic career; category 4; prefer job with limited private practice privileges, but will consider any full-time position without private practice allowances. Address: A-120.

• BACTERIOLOGIST: Male, 39, M.Sc., married. 5 years teaching experience in medical bacteriology and general microbiology. 12 years practical and administrative experience in public health laboratories. Desires teaching position with research opportunities or administrative positon in public health laboratory. Presently assistant professor of bacteriology. Available autumn 1954. Address: A-123.

• BIOCHEMIST-RADIOCHEMIST: Ph.D., 1953. Major in physical chemistry, minor in biochemistry. Experience in sterols, organic reacton mechanisms, small animal metabolism and radiocarbon dating. Presently engaged in research on mineral metabolism in man. Publications. Desires teaching or research position in applications of isotopes or physical chemistry to medical problems. Address: A-124.

• INTERNIST: M.D., practicing physician, consultant in medicine and encrocrinology, interested in university position developing research study to determine the potential of measuring taste as it adapts to and reflects immediate physiologic and nutritional needs.

Hospital and medical school teaching experience. Certified Am. Bd. of Internal Medicine; Am. Coll. Physicians. Address: A-125.

• BIOCHEMIST: Biochemistry-Internal medicine Ph.D., M.D., 40. Interested in medical school appointment for teaching and research. Experience in teaching, research and private practice. Particularly interested in clinical correlation of basic sciences. Address: A-126.

• PHYSIOLOGIST: Ph.D., male, 37, family. Experience in research and teaching mammalian physiology. Research emphasis in neurophysiology and visual physiology. Experienced in using electrophysiological techniques. Acquainted with problems and techniques of electromyography, especially as applied to human studies. Publications. References. Desires opportunity for research with or without teaching responsibilities. Available. Address: A-127.

• PHYSIOLOGIST: Ph.D., 35, married. Presently associate professor of medical physiology in large medical school. Fifteen years experience in teaching and research, the last seven in medical schools. Many publications in fields of nutrition, respiration, endocrinology, steroids, radioisotopes. Experienced in organization, administration, teaching. Considerable clinical experience. Will consider any location. Salary above $7000. Address: A-129.

• PHYSIOLOGIST: M.D., Ph.D., 35, family. Training requirements for boards in internal medicine completed. Teaching and research experience. Army service will be terminated end of 1954. Desires full-time academic position where basic science and clinical interests in teaching and research may be fulfilled. Address: A-128.

• PHYSIOLOGIST: Ph.D., 38, broad biological training. Wide experience in teaching and research. Desires teaching position in Chicago area with opportunity for research. Available September 1. Interest and experience in connective tissue permeability and biological effects of x-rays. Married. Address: A-130.

• PHYSICAL CHEMIST—BIOCHEMIST: Woman, single, 30. Ph.D., 1949. Major in physical chemistry, minor in biochemistry. Two years experience in clinical research on total body water and kinetics of water transfer. Desires teaching with some research. Publications, references. Address: A-131.

• ANATOMIST: 39, married, Ph.D. Specialty in neuroanatomy. Competent in human gross anatomy and histology. Two years completed in medical school. At present associate professor in medical school. Nine years teaching experience in medical school. Have had full charge of course in medical neuroanatomy. Research primarily in neurocytology and gross anatomy. Major advisor on graduate work was very eminent neuroanatomist. Minor work was in neuropathology. Prefer to remain in teaching and research in a medical school. Address: A-132.

• INTERNIST-GASTROENTEROLOGIST: M.D. Mayo and university training, total over five years, including gastroscopy and proctoscopy. Also interested in hematology and peripheral vascular diseases. Certified by American Board of Internal Medicine. Now instructor, department medicine. Family. Desires change in location. Address: A-133.

• ANATOMIST: Ph.D., 27, married. Desires permanent teaching-research position in medical school. Thoroughly trained in all phases of anatomy, especially neuroanatomy with minor field in pathology. Four years' teaching experience in gross anatomy and neuroanatomy. Extensive research experience including publications. Member Sigma Xi. References. Address: A-134.

• THORACIC AND GENERAL SURGEON, 48, Certified by board in surgery and in thoracic surgery. Member of numerous national societies and author of many scientific publications. Has served as chief of the surgical service in large teaching hospitals. Long experience in teaching and training programs; some in research. Desires teaching appointment in class A medical school, preferably full time. Primary interest in thoracic surgery. Address A-135.

• INTERNIST—HEMATOLOGY: 37, board certified, FACP. Available for interesting and challenging opportunity (academic, clinical or other.) Experience qualifies for teaching and/or research (basic and clinical,) organization and management, medical editing and public relations, direction of graduate students and resident training program, and clinical activities. In 10th year large midwestern medical college, currently associate professor. Address: A-136.

• BIOCHEMIST: Ph.D., presently holds teaching and research position in a medical school. Desires position with teaching and research responsibilities. Address: A-137.

• PUBLIC RELATIONS DIRECTOR: 20 years experience in handling a variety of business and college public relations, specialist in interpreting scientific and technical topics, interested in connection with medical school or medical foundation where his energies and talents might be concentrated to better advantage. Address: A-139.

• PEDIATRICIAN: 31, single. Interested only in child health or teaching positions. Four years experience in pediatrics, divided between private practice, one, USAMC, two, and large group-clinic, one. Diplomate, American Board Pediatrics. Excellent references. Woodward Medical bureau, 185 N. Wabash ave., Chicago.

• PEDIATRICIAN: Board eligible. Three years clinical training in Eastern university centers. Some research experience. Desires academic position allowing part time practice. Small medical school preferred. Address: A-140.

• BASIC RESEARCH: Man, 39, veteran. Ph.D. Chemistry. M.D. June 1955. Experienced in teaching graduate and medical biochemistry, organic synthesis, tracer work, intermediary metabolism and medical therapy using radioactive isotopes. Publications. Address: A-141.

• RADIOLOGIST: Academic post with practice privileges desired. Broad experience in administration and teaching. Special interest in radiation and radioisotope therapy. Address: A-142.

newest

broad-spectrum antibiotic

Tetracyn*

Brand of **tetracycline**

is now available on prescription from *Pfizer Laboratories*, Division, Chas. Pfizer & Co., Inc., world's largest producer of antibiotics, discoverers of oxytetracycline and the first to describe the structure of tetracycline, nucleus of modern broad-spectrum antibiotic therapy.

Tetracyn is supplied as Capsules, Tablets, Oral Suspension (chocolate flavored), Pediatric Drops (banana flavored), Intravenous, Intramuscular, Ophthalmic Ointment, and Ointment (topical).

*TRADEMARK

For well-tolerated therapy of such common infections as:

Pneumococcal infections, including pneumonia, with or without bacteremia; streptococcal infections, with or without bacteremia, including follicular tonsillitis, septic sore throat, scarlet fever, pharyngitis, cellulitis, urinary tract infections due to susceptible organisms, and meningitis; many staphylococcal infections, with or without bacteremia, including furunculosis, septicemia, abscesses, impetigo, acute otitis media, ophthalmic infections, susceptible urinary tract infections, bronchopulmonary infections, acute bronchitis, pharyngitis, laryngotracheitis, tracheobronchitis, sinusitis, tonsillitis, otitis media, and osteomyelitis; certain mixed bacterial infections; soft tissue infections due to susceptible organisms.

Pfizer PFIZER LABORATORIES, Brooklyn 6, N. Y.
Division, Chas. Pfizer & Co., Inc.

Linking description of structure
with discussion of purpose—

TEXTBOOK OF

THE NERVOUS SYSTEM

A Foundation for Clinical Neurology

by

H. CHANDLER ELLIOTT, M.A., Ph.D.

Associate Professor of Anatomy, College of Medicine, University of Nebraska

WITH AN INTRODUCTION BY

WILDER PENFIELD, M.D.

New, Second Edition **Published May 1954**

This textbook is so constructed that the completely uninitiated student can read its opening chapters without bewilderment and master its final descriptions without confusion.

In Part One, the descriptions are brief and simple so that the beginner may gain an integrated conception of the whole subject with a minimum of detail. In Part Two, this conception is fully elaborated.

Throughout the text, the reader will find references to the functions of structures and to the disabilities that must of necessity be associated with injury to those structures. Thus, it is truly a functional neuro-anatomy.

Designed to ease the learning process in the study of the nervous system.

438 Pages • 158 Illustrations plus an Atlas of 50 Plates • $9.00

For further information call your regular medical bookstore or write Medical Textbook Division:

J. B. LIPPINCOTT COMPANY
EAST WASHINGTON SQUARE, PHILADELPHIA 5, PA.